## Attachment 3:

Summary of Changes to School and Student Questionnaire Items
Included in Original Submission
A. PISA 2012 Field Test School Questionnaire Items

1. Items that are the same as in 2003 School Questionnaire
2. Items revised from 2003 School Questionnaire
3. Items not included in 2003 School Questionnaire
4. Items in 2003 School Questionnaire that have been eliminated
B. PISA 2012 Field Test Student Questionnaire Items

Note: There are 4 different forms of the student questionnaire for the field test. Each student will complete one questionnaire estimated at 30 minutes.

1. Items that are the same as in 2003 Student Questionnaire
2. Items revised from 2003 Student Questionnaire
3. Items not included in 2003 Student Questionnaire
4. Items in 2003 Student Questionnaire that have been eliminated

## A. PISA 2012 Field Test School Questionnaire

1. Items that are the same as in 2003 School Questionnaire

| PISA 2012 Field Test School Questionnaire |  | PISA 2003 School <br> Questionnaire <br> Item Number |
| :--- | :--- | :--- |
| Item <br> Numbe <br> $\mathbf{r}$ | Stem | Is your school a public or a private school? <br> A public school <br> A private school |
| SC01 | About what percentage of your total funding for a typical school year comes from the following sources? <br> (Please write a number in each row. Write 0 (zero) if no funding comes from that source.) <br> a. Government (includes departments, local, state, and federal) <br> b. Tuition, student fees, or school charges paid by parents <br> c. Benefactors, donations, bequests, sponsorships, parent fundraising <br> d. Other | Q4 |
| SC02 | Which of the following best describes the community in which your school is located? <br> a. A village, hamlet, or rural area (fewer than 3,000 people) <br> b. A small town (3,000 to about 15,000 people) <br> c. A town (15,000 to about 100,000 people) <br> d. A city (100,000 to about 1,000,000 people) <br> e. A large city (with over 1,000,000 people) |  |
| SC03 |  |  |
| SC07 | As of February 1, 2011, what was the total school enrollment (number of students)? <br> Number of boys <br> Number of girls | Q1 |
| SC08 | About what percentage of students in your school repeated a grade, at these levels, last academic year? <br> (Please write a number in each row. Write 0 (zero) if nobody repeated a grade. Check the 'not available' box <br> ifthe level does not exist in your school.) | Q6 |


|  | a. The approximate percentage of students repeating a grade at middle/junior high school level (grades 7-9) in this school last year was: <br> b. The approximate percentage of students repeating a grade at high school level (grades 10-12) in this school last year was: |  |
| :---: | :---: | :---: |
| SC10 | How many of the following are on the mathematics staff of your school? <br> Include both full-time and part-time teachers. A full-time teacher is employed at least $90 \%$ of the time as a teacher for the full school year. All other teachers should be considered part-time. <br> Please count only those teachers who have taught or will teach mathematics during the current school year. <br> (Please write a number in each space provided. Write 0 (zero) if there are none.) <br> Full Time/Part Time <br> Teachers of mathematics in TOTAL <br> Teachers of mathematics with a bachelor's or master's degree with a major in mathematics, mathematics education, statistics, physics, or engineering <br> Teachers of mathematics with a bachelor's or master's degree but not a major in mathematics, mathematics education, statistics, physics, or engineering <br> Teachers of mathematics with a bachelor's or master's degree in education <br> Teachers of mathematics with an associate's degree but not a bachelor's or master's degree | Q22 |
| SC15 | [stem slightly changed from 2003 - asks about $10^{\text {th }}$ grade students instead of 15-year-old students] <br> Schools sometimes organize instruction differently for students with different abilities and interests in mathematics. Which of the following options describe what your school does for the 10th grade students in mathematics classes? <br> (Please check one box in each row.) <br> For all classes/For some classes/Not for any classes | Q19 |


|  | a. Mathematics classes study similar content, but at different levels of difficulty. <br> b. Different classes study different content or sets of mathematics topics that have different levels of difficulty. <br> c. Students are grouped by ability within their mathematics classes. <br> d. In mathematics classes, teachers use pedagogy suitable for students with heterogeneous abilities (i.e., students are not grouped by ability). |  |
| :---: | :---: | :---: |
| SC18 | In your school, are assessments of students in the 10th grade used for any of the following purposes? <br> (Please check only one box in each row.) <br> To inform parents about their child's progress <br> To make decisions about students' retention or promotion <br> To group students for instructional purposes <br> To compare the school to district, state, or national performance <br> To monitor the school's progress from year to year <br> To make judgments about teachers' effectiveness <br> To identify aspects of instruction or the curriculum that could be improved <br> To compare the school with other schools | Q16 |
| SC26 | Think about the teachers in your school. How much do you agree with the following statements? <br> (Please check one box in each row.) <br> Strongly Agree/Agree/Disagree/Strongly Disagree | Q27 |


|  | The morale of teachers in this school is high. Teachers work with enthusiasm. Teachers take pride in this school. Teachers value academic achievement. |  |
| :---: | :---: | :---: |
| SC27 | How much do you agree with these statements about innovation in your school? <br> (Please check one box in each row.) <br> Strongly Agree/Agree/Disagree/Strongly Disagree <br> Mathematics teachers are interested in trying new methods and teaching practices. <br> There is a preference among mathematics teachers to stay with well-known methods and practices. <br> There are frequent disagreements between 'innovative' and 'traditional' mathematics teachers. | Q24 |
| SC28 | How much do you agree with these statements about teachers' expectations in your school? <br> (Please check one box in each row.) <br> Strongly Agree/Agree/Disagree/Strongly Disagree <br> There is consensus among mathematics teachers that academic achievement must be kept as high as possible. <br> There is consensus among mathematics teachers that it is best to adapt academic standards to the students' level sand needs. <br> There are frequent disagreements between mathematics teachers who consider each other to be 'too demanding' or 'too lax'. | Q25 |
| SC29 | How much do you agree with these statements about teaching goals in your school? <br> (Please check one box in each row.) <br> Strongly Agree/Agree/Disagree/Strongly Disagree | Q26 |


|  | There is consensus among mathematics teachers that the social and emotional development of students is as important as their acquisition of mathematical skills and knowledge in mathematics classes. <br> There is consensus among mathematics teachers that the development of mathematical skills and knowledge in students is the most important objective in mathematics classes. <br> There are frequent disagreements between mathematics teachers who consider each other as 'too focused on skill acquisition' or 'too focused on the affective development' of students. |  |
| :---: | :---: | :---: |
| SC30 | During the last year, have any of the following methods been used to monitor the practice of mathematics teachers at your school? <br> (Please check one box in each row.) <br> Tests or assessments of student achievement <br> Teacher peer review (of lesson plans, assessment instruments, lessons) <br> Principal or senior staff observations of lessons <br> Observation of classes by inspectors or other persons external to the school | Q23 |
| National item (Q50) | Approximately what percentage of students at this school last year were eligible for free- or reducedprice lunches through the National School Lunch Program? | Q7 |

## 2. Items revised from 2003 School Questionnaire

The following table shows the wording of items in the final PISA 2012 Field Test School Questionnaire and the wording of the parallel items in the 2003 School Questionnaire. If the item was used in 2009 with the current wording this is noted. In some cases the overall item is the same as what appeared in 2003, but additional subitems have been added; this is noted where relevant.


|  | school activities) |  |  |
| :---: | :---: | :---: | :---: |
| SC09 | Similar to Q21, included as is in 2009 School Questionnaire <br> How many of the following teachers are on the staff of your school? <br> Include both full-time and part-time teachers. A full-time teacher is employed at least $90 \%$ of the time as a teacher for the full school year. All other teachers should be considered part-time. <br> (Please write a number in each space provided. Write 0 (zero) if there are none. <br> a. Teachers in TOTAL <br> b. Teachers fully certified by the state in the main assignment field <br> c. Teachers with at least a bachelor's degree | Q21 | How many of the following are on the MATHEMATICS staff of your school? <br> Include both full-time and part-time teachers. A full-time teacher is employed at least $90 \%$ of the time as a teacher for the full school year. All other teachers should be considered part-time. <br> Please count only those teachers who have taught or will teach mathematics during the current school year. <br> (Please write a number in each space provided. Write 0 (zero) if there are none.) <br> a) Teachers of mathematics in TOTAL <br> b) Teachers of mathematics with a bachelor's or master's degree with a major in mathematics, mathematics education, statistics, physics, or engineering <br> c) Teachers of mathematics with a bachelor's or master's degree but not a major in mathematics, mathematics education, statistics, physics, or engineering <br> d) Teachers of mathematics with a bachelor's or master's degree in education <br> e) Teachers of mathematics with an associate's degree but not a bachelor's or |


|  |  |  | master's degree |
| :---: | :---: | :---: | :---: |
| SC11 | Similar to Q12 and included as is in 2009 School Questionnaire <br> At your school, what is the total number of students in the 10th grade? <br> Approximately, how many computers are available for these students for educational purposes? <br> Approximately, how many of these computers are connected to the Internet? | Q12 | In your school, about how many computers are: <br> (Please write a number in each row. Write 0 (zero) if there are none.) <br> a) in the school altogether? <br> b) available to 15 -year-old students? <br> c) available only to teachers? <br> d) available only to administrative staff? <br> e) connected to the Internet/World Wide Web? <br> f) connected to a local area network (LAN)? |
| SC14 | Is your school's capacity to provide instruction hindered by any of the following issues? <br> (Please check one box in each row.) <br> Not at all/Very little/To some/extent A lot <br> a) A lack of qualified science teachers <br> b) A lack of qualified mathematics teachers <br> c) A lack of qualified English teachers <br> d) A lack of qualified teachers of other subjects <br> e) Shortage or inadequacy of science laboratory equipment | Q11 | Is your school's capacity to provide instruction hindered by a shortage or inadequacy of any of the following? <br> (Please check one box in each row.) <br> Not at all/Very little/To some/extent A lot <br> a) Availability of qualified mathematics teachers <br> b) Availability of qualified science teachers <br> c) Availability of qualified English teachers <br> d) Availability of qualified foreign language |

\(\left.$$
\begin{array}{|l|l|l|}\hline & \begin{array}{l}\text { f) Shortage or inadequacy of instructional materials (e.g., } \\
\text { textbooks) } \\
\text { g) Shortage or inadequacy of computers for instruction } \\
\text { h) Lack or inadequacy of Internet connectivity } \\
\text { i) Shortage or inadequacy of computer software for instruction } \\
\text { j) Shortage or inadequacy of library materials } \\
\text { k) Shortage or inadequacy of school buildings and grounds } \\
\text { l) Shortage or inadequacy of heating/cooling and lighting systems } \\
\text { m) Shortage or inadequacy of instructional space (e.g., } \\
\text { classrooms) }\end{array} & \begin{array}{l}\text { teachers } \\
\text { e) Availability of experienced teachers . } \\
\text { f) Availability of substitute/replacement } \\
\text { teachers }\end{array}
$$ <br>
g) Availability of instructional support <br>
personnel (including technical or lab <br>

support)\end{array}\right]\)| h) Instructional materials (e.g. textbooks) |
| :--- |


|  | (Please check one box in each row.) <br> Yes/no <br> a. These students attend regular classes and receive additional periods of instruction aimed at developing English skills (e.g., reading literacy, grammar, vocabulary, communication). <br> b. Before transferring to regular classes, these students attend a preparatory program aimed at developing English skills (e.g., reading literacy, grammar, vocabulary, communication). <br> c. Before transferring to regular classes, these students receive some instruction in school subjects through their first language. <br> d. These students receive significant amounts of instruction in their first language aimed at developing proficiency in both languages. <br> e. Class size is reduced to cater to the special needs of these students. |  | options to 15 -year-old students whose first language is not English? <br> (Please check one box in each row.) <br> No, not for any languages/Yes for one language/Yes for 2 or more languages/Not applicable <br> a) Instruction in their native language is offered as a separate subject specifically for these students (e.g. Spanish language/literature for native Spanish speakers). <br> b) Instruction in their native language is offered as a separate subject for students who wish to learn the language (e.g. Spanish language/literature for students who want to learn or improve Spanish). <br> c) Instruction in other parts of the curriculum is offered in their language (e.g. mathematics course taught in Spanish). |
| :---: | :---: | :---: | :---: |
| SC21 | (c) and (d) are new <br> What is the purpose of these additional mathematics lessons? <br> (Please check one box in each row.) <br> Yes No <br> a. Enrichment mathematics only <br> b. Remedial mathematics only <br> c. Both Enrichment mathematics and Remedial mathematics | Q20 | In your school, do any of the following activities to promote engagement with mathematics occur? <br> (Please check one box in each row) <br> Yes No <br> a) Enrichment mathematics <br> b) Remedial mathematics <br> c) Mathematics competitions <br> d) Mathematics clubs <br> e) Computer clubs (specifically related to mathematics) |


|  | d. Without differentiation depending on the prior <br> achievement level of the students |  |
| :--- | :--- | :--- |
| SC22 | c, d, k, l,r, and s are new <br> In your school, to what extent is the learning of students hindered <br> by the following phenomena? <br> (Please check one box in each row.) <br> a) Student truancy <br> b) Students skipping classes <br> c) Students being late for classes during the school day <br> d) Students not attending compulsory school events (e.g., school <br> assemblies) or excursions <br> e) Students lacking respect for teachers <br> f) Disruption of classes by students <br> g) Student use of alcohol or illegal drugs <br> h) Students intimidating or bullying other students <br> i) Students not being encouraged to achieve their full potential <br> j) Poor student-teacher relations <br> k) Teachers having to teach students of heterogeneous ability <br> levels within the same class. <br> l) Teachers having to teach students of diverse ethnic <br> backgrounds (i.e., language, culture) within the same class. <br> m) Teachers' low expectations of students <br> n) Teachers not meeting individual students' needs <br> o) Teacher absenteeism <br> p) Staff resisting change <br> q) Teachers being too strict with students <br> r) Teachers being late for classes <br> s) Teachers not being well prepared for classes | In your school, to what extent is the <br> learning of students hindered by: |
| (Please check one box in each row.) |  |  |


|  |  |  | achieve their full potential? |
| :---: | :---: | :---: | :---: |
| SC32 | Similar to Q13, items (b) and (h) are new <br> How often are the following factors considered when students are admitted to your school? <br> (Please check one box in each row.) <br> Never/Sometimes/Always <br> a. Student's record of academic performance in general (including placement tests) <br> b. Student's record of performance specifically in mathematics (including placement test) <br> c. Recommendation of feeder schools <br> d. Parents' endorsement of the instructional or religious philosophy of the school <br> e. Whether the student requires or is interested in a special program <br> f. Preference given to family members of current or former students <br> g. Residence in a particular area <br> h. Other | Q13 | How much consideration is given to the following factors when students are admitted to your school? <br> (Please check one box in each row.) <br> Prerequisite/High priority /Considered /Not considered <br> a) Residence in a particular area <br> b) Student's academic record (including placement tests) <br> c) Recommendation of feeder schools <br> d) Parents' endorsement of the instructional or religious philosophy of the school <br> e) Student need or desire for a special program <br> f) Attendance of other family members at the school (past or present) |
| SC33 | Similar to Q29; response categories revised so item is more like version used in 2009 Regarding your school, who has a considerable responsibility f following tasks? <br> (Please check as many boxes as appropriate in each row.) | $\begin{aligned} & \text { Q29 } \\ & \text { r the } \end{aligned}$ | In your school, who has the main responsibility for: |


| Principals/Teachers/School-level governing board/Local education agency/State education agency/U.S. Dept of Education <br> a)Selecting teachers for hire <br> b)Firing teachers <br> c) Establishing teachers' starting salaries <br> d)Determining teachers' salary increases <br> e)Formulating the school budget <br> f)Deciding on budget allocations within the school <br> g)Establishing student disciplinary policies <br> h)Establishing student assessment policies <br> i)Approving students for admission to the school <br> j)Choosing which textbooks are used <br> k)Determining course content <br> 1)Deciding which courses are offered |  | (Please check as many boxes as appropriate in each row.) <br> Not a main responsibility of the school/Appointed or elected school board /Principal /Department Head/Teacher(s) <br> a) hiring teachers? <br> b) firing teachers? <br> c) establishing teachers' starting salaries? <br> d) determining teachers' salary increases? <br> e) formulating the school budget? <br> f) deciding on budget allocations within the school? <br> g) establishing student disciplinary policies? <br> h) establishing student assessment policies? <br> i) approving students for admittance to the school? <br> j) choosing which textbooks are used? <br> k) determining course content? <br> 1) deciding which courses are offered? .... |
| :---: | :---: | :---: |

## 3. Items Not Included in 2003 School Questionnaire

The following items were not included in the PISA 2003 School Questionnaire. Some items have appeared in other administrations of PISA $(2000,2006$ or 2009) and this is noted where relevant.
[The following item was not administered in 2003 but was administered in 2009.]
We are interested in the options parents have when choosing a school for their children.

Which of the following statements best describes the schooling available to students in your location?
(Please check only one box.)

There are two or more other schools in this area that compete for our students.

There is one other school in this area that competes for our students.

There are no other schools in this area that compete for our students.

What is the average size of English classes in the 10th grade in your school? Q5
(Please check only one box.)

15 students or fewer

26-30 students

31-35 students

36-40 students

41-45 students

46-50 students

More than 50 students


 $\square_{04}$ $\square_{05}$ $\square_{06}$ $\square_{07}$ $\square_{08}$ $\square_{09}$

Which of the following statements describe the 10th grade students' access to computers in your school?
(Please check one box per row.)
Yes No
a) The school provides one or more specially equipped computer rooms/labs for students' use.
b) The school provides a pool of laptops (i.e., at least one set for an average class size) for students' use.
c) The school provides each student with a laptop.
d) Each student provides his or her own laptop.
e) Each student has one laptop, partly funded by the school and partly funded by the students or their parents.
f) Students have access to computers or laptops during classes only.
g) Students have access to computers or laptops outside classes (e.g., during breaks or free lessons).

In all subjects taken together, for how much of their work does the school expect
Q13 the 10th grade students to access the Internet?
(Please check only one box in each row.)

|  | $<10 \%$ | $10-$ |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: |
| a) Work during class | $\square_{1}$ | $\square_{2}$ | $\square_{3}$ | $\square_{4}$ | $\square_{5}$ |
| b) Homework | $\square_{1}$ | $\square_{2}$ | $\square_{3}$ | $\square_{4}$ | $\square_{5}$ |
| c) Assignments or projects | $\square_{1}$ | $\square_{2}$ | $\square_{3}$ | $\square_{4}$ | $\square_{5}$ |

[The following item was not administered in 2003 but was administered in 2009.]
In this academic year, which of the following activities does your school offer to students in the 10th grade?
(Please check one box in each row.)
Yes No
a) Band, orchestra or choir
b) School play or school musical
c) School yearbook, newspaper or magazine
d) Volunteering or service activities
e) Mathematics club
f) Mathematics competitions
g) Chess club
h) Club with a focus on computers/ Information and Communication Technology
i) Art club or art activities
j) Sports team or sports activities

$\square_{2}$
$\square_{1}$
$\square_{1}$
$\square_{1}$
$\square_{1}$$\square_{1}$$\square_{2}$
[The following item was not administered in 2003 but was administered in 2009.]
In your school, are achievement data used in any of the following accountability
a) Achievement data are posted publicly (e.g., in the media)
b) Achievement data are tracked over time by an administrative authority, such as a district, state, or national education agency

Does your school offer mathematics lessons or classes in addition to the mathematics classes offered during the usual school hours?
(Please check only one box.)

Yes

$$
\square_{1}
$$

go to the next question

No

$$
\square_{2}
$$

go to Q21

During the last academic year, what proportion of students left your school without a diploma or an alternative credential (e.g., a GED)? Only include students who dropped out of school without a diploma or alternative credential (e.g., a GED), not students who moved or transferred to another school.

Which statement below best characterizes parental expectations towards your school?
(Please check only one box.)
There is constant pressure from many parents, who expect our school to set very high academic standards and to have our students achieve them

Pressure on the school to achieve higher academic standards among students comes from a minority of parents

Pressure from parents on the school to achieve higher academic standards among students is largely absent

## During the last academic year, for what proportion of students did parents participate in the following school-related activities?

(Please write a number in each row. Write 0 (zero) if no parents participated in the activity. Write 100 (one hundred) if all parents participated in the activity)
a) Discussed their child's behavior with a teacher on their own initiative
b) Discussed their child's behavior on the initiative of one of their child's teachers
c) Discussed their child's academic progress with a teacher on their own initiative
d) Discussed their child's academic progress on the initiative of one of their child's teachers
e) Volunteered for physical activities, e.g., building maintenance, carpentry, gardening or yard work
f) Volunteered for extra-curricular activities, e.g., book club, school play, sports, field trip
g) Volunteered in the school library or media center
h) Assisted a teacher in the school
i) Appeared as a guest speaker
j) Participated in local school government, e.g., PTA, parent advisory council
k) Fundraising for the school
(Please check one box in each row.)

|  | No changeA small <br> change | A <br> moderate <br> change | Alarge <br> change |  |
| :--- | :---: | :---: | :---: | :---: |
| a) A change in salary. | $\square_{1}$ | $\square_{2}$ | $\square_{3}$ | $\square_{4}$ |
| b) A financial bonus or another kind of |  |  |  |  |
| monetary reward. |  |  | $\square_{3}$ | $\square_{4}$ |
| c) Opportunities for professional development |  |  |  |  |
| activities. | $\square_{1}$ | $\square_{2}$ | $\square_{2}$ | $\square_{3}$ |

[The following item was not administered in 2003 but was administered in 2009.]
Below are statements about your management of this school. Please indicate the frequency of the following activities and behaviors in your school during the last academic year.
(Please check only one box in each row.)

|  | Less <br> than <br> oncea <br> year | Once a <br> year | 3-4 <br> times <br> a year | Oncea <br> month | Oncea <br> than <br> week |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\square_{1}$ | $\square_{2}$ | $\square_{3}$ | $\square_{4}$ | $\square_{5}$ | $\square_{6}$ |
|  |  |  |  |  |  |  |

b) I use student performance results to develop the school's educational goals.
c) I make sure that the professional development activities of teachers are in accordance with the teaching goals of the school.
d) I ensure that teachers work according to the school's educational goals.
e) I promote teaching practices based on recent educational research.
f) I praise teachers whose students are actively participating in learning.
g) When a teacher has problems in his/her classroom, I take the initiative to discuss matters.
h) I draw teachers' attention to the importance of students' development of critical and social capacities.
i) I pay attention to disruptive behavior in classrooms.
j) I provide staff with opportunities to participate in school decision-making.
k) I engage teachers to help build a school culture of continuous improvement.

1) I ask teachers to participate in reviewing management practices
m) When a teacher brings up a classroom problem, we solve the problem together.
n) I discuss the school's academic goals with teachers at faculty meetings.
o) I refer to the school's academic goals when making curricular decisions with teachers.
p) I discuss academic performance results with the faculty to identify curricular strengths and weaknesses.
q) I lead or attend in-service activities concerned with instruction.
r) I set aside time at faculty meetings for teachers to share ideas or information from in-service activities.
s) I conduct informal observations in classrooms on a regular basis (informal observations are unscheduled, last at least 5 minutes, and may or may not involve written feedback or a formal conference).
t) I review student work products when evaluating classroom instruction.
u) I ensure that the classroom priorities of teachers are consistent with the goals and direction of the school.

During the last three months, what percentage of teaching staff in your school has attended a program of professional development with a focus on mathematics?

A program of professional development here is a formal program designed to enhance teaching skills or pedagogical practices. It may or may not lead to a recognized qualification. The total length of the program must last for at least one day and have a focus on the teaching and education of mathematics.
$\begin{array}{ll}\text { a) All staff at your school } & \\ \text { b) Staff who teach mathematics at your school } & \end{array}$
[The following item was not administered in 2003 but was administered in 2000.]
Who has the main responsibility for career guidance of students in the 10th grade at your school?
(Please check only one box.)
Not applicable, career guidance is not available in this school.

All teachers share the responsibility for career guidance.

Specific teachers have the main responsibility for career guidance.

We have one or more specific career guidance counselors employed at school.

We have one or more specific career guidance counselors who regularly visit the school.
[The following item was not administered in 2003 but was administered in 2006.]
If career guidance is available at your school, which of the statements below best describes the situation for students in the 10th grade?

Please skip this question if career guidance is not available at your school.
Otherwise, please check only one box.
Career guidance is sought voluntarily by students.

Career guidance is formally scheduled into students' time at school.
[The following item was not administered in 2003 but was administered in 2006.]
To what extent do you feel that teachers in your school concentrate on developing Q38 in students the skills and knowledge that will help them in tertiary (postsecondary) education?
(Please check only one box.)

These skills and knowledge are not a major part of teachers' pedagogical activities

These skills and knowledge are integrated into teachers' pedagogical activities, but they are not emphasized

These skills and knowledge are a focus of teachers' pedagogical activities

Q39 Which of the following measures aimed at quality assurance and improvement do you have in your school?
(Please check one box in each row.)
a) A written specification of the school's curricular profile and educational goals
b) Written specification of student performance standards
c) Systematic recording of data, including teacher and student attendance and graduation rates, test results, professional development of teachers
d) Analysis of professional development needs and development of a professional development plan for teachers and school leadership
e) Internal evaluation/self-evaluation
f) External evaluation
g) Seeking written feedback from students (e.g., regarding classes, teachers or resources)
h) Teacher mentoring
i) Regular consultation aimed at school improvement with one or more experts over a period of at least six months
j) Implementation of a standardized policy for mathematics (e.g., school curriculum with shared instructional materials accompanied by staff development and training.)
k) The school has written induction information for new teachers

1) The school takes new teachers through the induction information

## Which of the following statements apply in your school?

A policy refers to written rules known to those concerned by the policy.
(Please check one box in each row.)
a) The school has a policy on how to use computers in mathematics instruction, (e.g., amount of computer use in mathematics classes, use of specific mathematics computer programs).
b) All the 10th grade mathematics classes in the school use the same textbook.
c) Mathematics teachers in the school follow a standardized curriculum that specifies content at least on a monthly basis.

## How is the attendance of students at your school monitored?

(Please check one box in each row.)

No
a) Student attendance is recorded every morning.
b) Student attendance is recorded in every class.
c) Students (or their parents) report their absences to the school.
d) Principal or other member of the school leadership personally monitors students' attendance.

At your school, how is student truancy followed-up?
(Please check all that apply.)
Truancy once Repeated or ongoing or twice
a) Oral warning to student

Extra duties for student, e.g., picking up
b) litter, additional assignments, giving up breaks or staying after school
c) Written warning to student
d) Agreement/contract about attendance with student
e) Parents contacted by phone
f) Written warning to parents
g) Parents invited to school
h) Home visit

Consultation with student by specialized
i) staff, e.g., social worker or guidance
counselor
j) Suspension
k) Expulsion

Which of the following statements apply in your school?
Q43
A policy refers to written rules known to those concerned by the policy.
(Please check one box in each row.)

Yes No | Don't |
| :---: |
| know |

a) The school had a policy for monitoring and reacting to student truancy three years ago.
b) The leadership of the school regarded student truancy as a problem three years ago.
c) The school currently has a policy for monitoring and reacting to student truancy.

Following item was not in 2003 School Questionnaire but included in 2009 School Questionnaire
In your school, how likely is it that a student in the 10th grade would be transferred to another school because of the following reasons?

If students are never transferred, please finish here. Thank you.
(Please check one box in each row.)
a) Low academic achievement
b) High academic achievement

| Not likely | Likely | Very likely |
| :---: | :---: | :---: |
| $\square_{1}$ | $\square_{2}$ | $\square_{3}$ |
| $\square_{1}$ | $\square_{2}$ | $\square_{3}$ |

c) Behavioral problems
d) Special learning needs
e) Parents' or guardians' request
f) Other

The following four questions are about financial education in your school. Financial education involves topics such as money and transactions; planning and managing finances (including saving and spending; credit and debt; and financial decision-making); risk and reward (investment and insurance); and financial landscape (including consumer rights and responsibilities and understanding of the wider financial, economic and social system).

Is financial education compulsory in your school?
Q45
(Please check only one box.)
Yes

No

## Which of the statements below describe the teaching of financial education at your school?

For each statement, please indicate the number of hours of financial education of this type for students in the 10th grade during the last academic year?
(Please check one box in each row.)
a) It is taught as a separate subject.
b) It is taught as a cross-curricular subject.
c) It is taught as part of business or economics courses.
d) It is taught as part of other social sciences and humanities subjects (e.g., history, geography, home economics, civics).
e) It is taught as part of mathematics.

|  |  |  |  | 50 or |
| :---: | :---: | :---: | :---: | :---: |
|  | 1-4 | 5-19 | 20-49 | more |
| $\begin{aligned} & \text { Not at } \\ & \text { all } \end{aligned}$ | hours a year | hours | $\begin{aligned} & \text { hours a } \\ & \text { year } \end{aligned}$ | hours |
| $\square_{1}$ | $\square_{2}$ | $\square_{3}$ | $\square_{4}$ | $\square_{5}$ |

f) It is available as an extracurricular activity.

For the following two statements please respond with yes or no.
(Please check one box in each row.)


#### Abstract

Yes No g) It is provided by people from outside your school, from private sector finance institutions (e.g., commercial bank, insurance company).


h) It is provided by people from outside your school, NOT from private sector finance institutions (e.g., Department of Commerce, Reserve Bank).

Which of the statements below best describes the situation for students in the
(Please check only one box.)

Financial education is not available.

Financial education has been available for less than two years.

Financial education has been available for two years or more.

Which of the statements below best describe the situation for teachers at your school regarding professional development in financial education?
(Please check one box in each row.)

Yes No | Not |
| :---: |
| applicable |

a) Financial education is required as part of pre-service education for teachers who teach financial education.
b) Financial education is offered as part of preservice education for teachers who teach financial education.
c) Professional development in financial education is available to teachers who teach financial education.
d) Teachers have attended professional development in financial education in the past 12 months.

## 4. Items in 2003 School Questionnaire that have been eliminated:

| Item \# | Stem |
| :--- | :--- |
| Q5 | Are the following grade levels found in your school? <br> a) Kindergarten <br> $\cdot$ |
|  | o) Ungraded school |
|  | Think about the students in your school. How much do you agree with <br> the following statements? <br> a) Students enjoy being in school. <br> b) Students work with enthusiasm. <br> c) Students take pride in this school. <br> d) Students value academic achievement. <br> e) Students are cooperative and respectful. <br> f) Students value the education they can receive in this school. <br> g) Students do their best to learn as much as possible. |
| Q15 | Generally, in your school, how often are 15-year-old students assessed <br> using: <br> a) Standardized tests? <br> b) Teacher-developed tests? <br> c) Teachers' evaluations of students? <br> d) Student portfolios? <br> e) Student assignments/projects/homework? |
| Q17About how many 15-year-old students in your school have a first <br> language that is not English? <br> a) 40\% or more <br> b) 20\% or more but less than 40\% <br> c) 10\% or more but less than 20\% <br> d) Less than 10\% |  |
| Q30 | In your school, which of the following bodies expert a direct influence <br> on decision-making about staffing, budgeting, instruction content and <br> assessment practices? <br> a) Local, state or national education authorities (e.g. Department of <br> Education) <br> b) Appointed or elected school board. <br> c) Employers <br> d) Parent groups <br> e) Teacher groups (e.g. Staff Association, curriculum committees, union) <br> f) Student groups (e.g. Student Association, youth organization) <br> g) External examination boards |

## B. PISA 2012 Field Test Student Questionnaire

1. Items that are the same as in the 2003 Student Ouestionnaire

| PISA 2012 Field Test Student Questionnaire | PISA <br> 2003 <br> Student <br> Questio <br> nnaire |  |
| :--- | :--- | :--- |
| Item <br> Numb <br> er | Stem | Item <br> Number |
| Q1 | What grade are you in? <br> grade | Q1 |
| Q2 | When were you born? <br> (Please write the month, day, and year you were born.) <br> Month Day Year _- | Q2 |
| Q3 | Are you female or male? <br> Female <br> Male | Q3A |
| Q4 | Which best describes you? <br> (Please check only one box.) <br> I am Hispanic or Latino. <br> I am not Hispanic or Latino. | Q3B |
| Q5 | Which of these categories best describes your race? <br> (Please check one or more boxes.) <br> White <br> Black or African American <br> Asian | Q3C |


|  | American Indian or Alaska Native Native Hawaiian or Other Pacific Islander |  |
| :---: | :---: | :---: |
| Q7 | Did you attend kindergarten? <br> No <br> Yes | Q20 |
| Q9 | Have you ever repeated a grade? <br> (Please check only one box in each row.) <br> In kindergarten <br> In grades 1-6 <br> In grades 7-9 <br> In grades 10-12 | Q22 |
| Q10 | In the last two full weeks you were in school, how many times did you arrive late for school? <br> (Please check only one box.) <br> None <br> One or two times <br> Three or four times <br> Five or more times | Q26 |
| Q15A | What is your mother's main job? <br> (e.g., school teacher, cook, sales manager) <br> (If she is not working now, please tell us her last main job.) <br> Please write in the job title. $\qquad$ | Q07 |


| QB | What does your mother do in her main job? <br> (e.g., teaches high school students, helps prepare meals in a restaurant, manages a sales team) <br> Please use a sentence to describe the kind of work she does or did in that job. |  |
| :--- | :--- | :--- |
| Q18 | What is your mother currently doing? <br> (Please check only one box.) <br> Working full-time for pay <br> Working part-time for pay <br> Not working, but looking for a job <br> Other (e.g., home duties, retired) | Q08 |
| Q19A | What is your father's main job? <br> (e.g., school teacher, cook, sales manager) <br> (If is is not working now, please tell us his last main job.) <br> Please write in the job title. | Q05 |
| Q19B | What does your father do in his main job? <br> (e.g., teaches high school students, helps prepare meals in a restaurant, manages a sales team) <br> Please use a sentence to describe the kind of work he does or did in that job. | Q09 |
| Q22 <br> What is your father currently doing? <br> (Please check only one box.) <br> Working full-time for pay <br> Working part-time for pay <br> Not working, but looking for a job <br> Other (e.g., home duties, retired) | Q10 |  |


| Q23 | In what country were you and your parents born? <br> (Please check one box in each column.) <br> You Mother Father <br> United States* <br> Other country |  | Q15a |
| :--- | :--- | :--- | :--- |
| Q24 | If you were NOT born in the United States how old were you when you arrived in the United <br> States? <br> If you were less than 12 months old, please write zero (0). <br> If you were born in the United States please skip this question and go to Q 25. |  | Q15b |
| Q26 | What language do you speak at home most of the time? <br> (Please check only one box.) <br> English <br> Spanish <br> Other language | Q16 |  |
| Q29 | How many books are there in your home? <br> There are usually about 15 books per foot of shelving. Do not include magazines, newspapers, <br> or your schoolbooks. <br> (Please check only one box.) <br> $0-10$ books <br> 11-25 books <br> $26-100$ books <br> $101-200$ books <br> $201-500$ books | Q19 |  |


|  | More than 500 books |  |
| :---: | :---: | :---: |
| Q30 | Thinking about your views on mathematics: To what extent do you agree with the following statements? <br> (Please check only one box in each row.) <br> Strongly agree Agree Disagree Strongly disagree <br> a) I enjoy reading about mathematics. <br> b) Making an effort in mathematics is worth it because it will help me in the work that I want to do later on. <br> c) I look forward to my mathematics lessons. <br> d) I do mathematics because I enjoy it. <br> e) Learning mathematics is worthwhile for me because it will improve my career prospects. <br> f) I am interested in the things I learn in mathematics. <br> g) Mathematics is an important subject for me because I need it for what I want to study later on. <br> h) I will learn many things in mathematics that will help me get a job. | Q28 |


| Q43 | Thinking about studying mathematics: To what extent do you agree with the following statements? <br> (Please check only one box in each row.) <br> Strongly agree <br> Agree <br> Disagree <br> Strongly disagree <br> a) I often worry that it will be difficult for me in mathematics classes <br> b) I am just not good at mathematics. <br> c) I get very tense when $I$ have to do mathematics homework. <br> d) I get good grades in mathematics. <br> e) I get very nervous doing mathematics problems. <br> f) I learn mathematics quickly. <br> g) I have always believed that mathematics is one of my best subjects. <br> h) I feel helpless when doing a mathematics problem. <br> i) In my mathematics class, I understand even the most difficult work. <br> j) I worry that I will get poor grades in mathematics. | Q30 |
| :---: | :---: | :---: |


| Q51 | Thinking about your mathematics classes: To what extent do you agree with the following statements? <br> (Please check only one box in each row.) <br> Stronglyagree Agree Disagree Stronglydisagree <br> a) I would like to be the best in my class in mathematics. <br> ) In mathematics I enjoy working with other students in groups. <br> c) I try very hard in mathematics because I want to do better on the exams than the others. <br> d When we work on a project in mathematics, I think that it is a good idea to combine the ideas of all the ) students in a group. <br> e) I make a real effort in mathematics because I want to be one of the best. <br> f) I do my best work in mathematics when I work with other students. <br> g) In mathematics I always try to do better than the other students in my class. <br> ) In mathematics, I enjoy helping others to work well in a group. <br> i) In mathematics I learn most when I work with other students in my class. <br> j) I do my best work in mathematics when I try to do better than others. | Q35 |
| :---: | :---: | :---: |
| Q53 | There are different ways of studying mathematics: To what extent do you agree with the following statements? <br> (Please check only one box in each row.) <br> Strongly agree Agree Disagree Strongly disagree <br> a) When I study for a mathematics test, I try to figure out what are the most important parts to learn. | Q32 |


|  | b) When I am solving mathematics problems, I often think of new ways to get the answer. <br> c) When I study mathematics, I make myself check to see if I remember the work I have already done. <br> d) When I study mathematics, I try to figure out which concepts I still have not understood properly. <br> e) I think about how the mathematics I have learned can be used in everyday life. <br> f) I go over some problems in mathematics so often that I feel as if I could solve them in my sleep. <br> g) When I study for mathematics, I learn as much as I can by heart. <br> h) I try to understand new concepts in mathematics by relating them to things I already know. <br> i) In order to remember the method for solving a mathematics problem, I go through examples again and again. When I cannot understand something in mathematics, I always search for more information to clarify the problem. <br> When I am solving a mathematics problem, I often think about how the solution might be applied to other interesting questions. <br> 1) When I study mathematics, I start by working out exactly what I need to learn. <br> m) To learn mathematics, I try to remember every step in a procedure. <br> n) When learning mathematics, I try to relate the work to things I have learned in other subjects. |  |
| :---: | :---: | :---: |
| Q72 | In a normal, full week at school, how many class periods do you have in total? | Q33c |
| Q87 | Thinking about the teachers at your school: To what extent do you agree with the following statements? <br> (Please check only one box in each row.) <br> Strongly agree Agree Disagree Strongly disagree <br> a) Students get along well with most teachers. <br> b) Most teachers are interested in students' well-being. <br> c) Most of my teachers really listen to what I have to say. <br> d) If I need extra help, I will receive it from my teachers. <br> e) Most of my teachers treat me fairly. | Q25 |

Thinking about what you have learned in school: To what extent do you agree with
(Please check only one box in each row.)

## Strongly agree Agree Disagree Strongly disagree

a) School has done little to prepare me for adult life when I leave school.
b) School has been a waste of time.
c) School helped give me confidence to make decisions.
d) School has taught me things which could be useful in a job.

## 2. Items changed from 2003 Student Questionnaire

| 2012 |  | 2003 |  |
| :---: | :---: | :---: | :---: |
| Item \# | Item | Item \# | Item |
| ST08 | How old were you when you started first grade? $\qquad$ Years | Q21 | How old were you when you started elementary school? |
| Q13 | Bachelor's degree or higher broken out into 3 categories to capture 4-year, Master's and PhD. <br> What is the highest grade or level of school you expect to complete? <br> (Please check only one box.) <br> Less than high school <br> High school <br> Vocational or technical certificate (such as cosmetology or auto mechanics) <br> Associate's degree (2-year degree from a community college) <br> Bachelor's degree (4-year college degree) <br> Master's degree <br> Doctoral or professional degree such as medicine or law | Q23 | Which of the following do you expect to complete? <br> (Please check as many as apply.) <br> a) Middle or junior high school <br> b) High school <br> c) Vocational or technical certificate after high school (such as cosmetology or auto mechanics) <br> d) Associate's degree <br> e) Bachelor's degree or higher. |


| Q14 | Expanded categoires to include siblings, combined "other female gaurdian/male gaurdian with Mother/Father <br> Who usually lives at home with you? <br> Yes No <br> a) Mother (including stepmother or foster mother) <br> b) Father (including stepfather or foster father) <br> c) Brother(s) (including stepbrothers) <br> d) Sister(s) (including stepsisters) <br> e) Grandparent(s) <br> f) Others (e.g., cousin) | Q4 | Who usually lives at home with you? (Please check as many boxes as apply.) <br> a) Mother <br> b) Other female guardian (e.g., stepmother or foster mother) <br> c) Father <br> d) Other male guardian (e.g., stepfather or foster father) <br> e) Others (e.g. brother, sister, cousin, grandparents) |
| :---: | :---: | :---: | :---: |
| Q16 | Combined "completed grade 12" and "completed GED" into single category and references specific grades <br> What is the highest level of schooling (not including college) completed by your mother? <br> If you are not sure which box to choose, please ask the test administrator for help. <br> (Please check only one box.) <br> She completed grade 12 (high school diploma or GED) <br> She completed grade 9 | Q11 | Which of the following did your mother complete at school? <br> (Please check as many boxes as apply.) <br> a) High school diploma <br> b) High school equivalency or GED <br> c) Middle or junior high school <br> d) Elementary school <br> e) None of the above |


|  | She completed grade 6 <br> She did not complete grade 6 |  |  |
| :---: | :---: | :---: | :---: |
| Q17 | Does your mother have any of the following degrees, certificates, or diplomas? <br> If you are not sure how to answer this question, please ask the test administrator for help. <br> (Please check one box in each row.) <br> Yes No <br> Master's, doctoral, or professional degree such as medicine or law <br> Bachelor's degree (4-year college degree) <br> Associate's degree (2-year degree from a community college) Vocational or technical certificate/diploma after high school (such as cosmetology or auto mechanics) | Q12 | Does your mother have any of the following qualifications? <br> (Please check as many boxes as apply.) <br> a) Bachelor's, master's, doctorate or professional degree such as law or medicine <br> b) Associate's degree <br> c) Vocational or technical certificate/diploma after high school |
| Q20 | What is the highest level of schooling (not including college) completed by your father? <br> If you are not sure how to answer this question, please ask the test administrator for help. <br> (Please check only one box.) <br> He completed grade 12 (high school diploma or GED) <br> He completed grade 9 <br> He completed grade 6 <br> He did not complete grade 6 | Q13 | Which of the following did your father complete at school? <br> (Please check as many boxes as apply.) <br> a) High school diploma <br> b) High school equivalency or GED <br> c) Middle or junior high school <br> d) Elementary school <br> e) None of the above |


| Q21 | Does your father have any of the following degrees, certificates or diplomas? <br> If you are not sure which box to choose, please ask the test administrator for help. <br> (Please check one box in each row.) <br> Yes No <br> a. Master's, doctoral, or professional degree such as medicine or law <br> b. Bachelor's degree (4-year college degree) <br> c. Associate's degree (2-year degree from a community college) <br> d. Vocational or technical certificate/diploma after high school (such as cosmetology or auto mechanics) | Q14 | Does your father have any of the following qualifications? <br> (Please check as many boxes as apply.) <br> a) Bachelor's, master's, doctorate or professional degree such as law or medicine <br> b) Associate’s degree <br> c) Vocational or technical certificate/diploma after high school |
| :---: | :---: | :---: | :---: |
| Q27 | Deleted "Your own calculator; added items n) and o) <br> Which of the following are in your home? <br> (Please check one box in each row.) Yes No <br> a) A desk to study at <br> b) A room of your own <br> c) A quiet place to study <br> d) A computer you can use for school work <br> e) Educational software | Q17 | Which of the following do you have in your home? <br> (Please check as many boxes as apply.) <br> a) A desk to study at <br> b) A room of your own <br> c) A quiet place to study <br> d) A computer you can use for school work <br> e) Educational software <br> f) A link to the Internet <br> g) Your own calculator |


|  | f) A link to the Internet <br> g) Classic literature (e.g., Shakespeare) <br> h) Books of poetry <br> i) Works of art (e.g., paintings) <br> j) Books to help with your school work <br> k) Technical reference books or manuals <br> 1) A dictionary <br> m) A dishwasher <br> n) A DVD player <br> o) A guest room <br> p) A high-speed Internet connection <br> q) A musical instrument | h) Classic literature (e.g., <br> Shakespeare, Jane Austen, Mark Twain) <br> i) Books of poetry <br> j) Works of art (e.g., paintings) <br> k) Books to help with your school work <br> 1) A dictionary <br> m) A dishwasher |
| :---: | :---: | :---: |


| Q28 | Add "with a bathtub or shower " to item e) <br> How many of these are there at your home? <br> (Please check only one box in each row.) <br> None One Two Three or more <br> a) Cell phones <br> b) Televisions <br> c) Computers <br> d) Cars <br> e) Bathrooms with a bathtub or shower | Q18 | How many of these do you have at your home? <br> (Please check only one box in each row.) <br> a) Cellular phone <br> b) Television <br> c) Computer <br> d) Car <br> e) Bathroom |
| :---: | :---: | :---: | :---: |


| Q38 | Scale changed item (f) to 1:10,000 <br> How confident do you feel about having to do the following mathematics tasks? <br> (Please check only one box in each row.) <br> Very confident Confident Not very confident <br> a) Using a train schedule to figure out how long it would take to get from one place to another. <br> b) Calculating how much cheaper a TV would be after a $30 \%$ discount. <br> c) Calculating how many square feet of tile you need to cover a floor. <br> d) Understanding graphs presented in newspapers. <br> e) Solving an equation like $3 x+5=17$. <br> f) Finding the actual distance between two places on a map with a $1: 10,000$ scale. <br> g) Solving an equation like $2(x+3)=(x+3)(x-3)$. <br> h) Calculating the gas mileage of a car. | Q29 | How confident do you feel about having to do the following mathematics tasks? <br> (Please check only one box in each row.) <br> a) Using a train timetable to work out how long it would take to get from one place to another. <br> b) Calculating how much cheaper a TV would be after a $30 \%$ discount. <br> c) Calculating how many square feet of tile you need to cover a floor. <br> d) Understanding graphs presented in newspapers. <br> e) Solving an equation like $3 x+5=17$ <br> f) Finding the actual distance between two places on a map with a 1:100 scale. <br> g) Solving an equation like $2(x+3)=(x+3)(x-3)$. <br> h) Calculating the gas mileage of a car. |
| :---: | :---: | :---: | :---: |


| Q60 | Added English and Science to Mathematics; records specific grade in each subject for the last report card and in the last school the student attended. <br> What grade did you receive in the following subjects both on your last report card and the last school you attended? <br> For each subject consider the specific course in that subject you were taking. If taking more than one course in a subject, include only your highest grade. <br> (Please check only one box on each row.) <br> Last report card Last school you attended <br> a) English <br> b) Mathematics <br> c) Science | Q42 | In your last school report, how did your grade in mathematics compare with the passing grade? <br> (Please check only one box.) <br> At or above the passing grade <br> Below the passing grade |
| :---: | :---: | :---: | :---: |
| Q61 | Added English and Science to Mathematic; breaks first response option into "Above the passing grade"and "At the passing grade" <br> On your last report card, how did your grade compare with the passing grade in each subject area? <br> For each subject consider the specific course in that subject you were taking. If taking more than one course in a subject, include only your highest grade. <br> (Please check only one box on each row.) <br> Above the passing grade grade <br> At the passing grade Below the passing <br> a) English <br> b) Mathematics <br> c) Science | Q42 | In your last school report, how did your grade in mathematics compare with the passing grade? <br> (Please check only one box.) <br> At or above the passing grade Below the passing grade |
| Q62 | The original item b), d) and h) have been deleted and new ones have been inserted, item e) has been modified | Q29 | How confident do you feel about having to do the following |


|  | Have you been taught to do the following types of mathematics tasks during your time in school? <br> (Please check only one box on each row.) <br> Frequently Sometimes Rarely Never <br> a) Using a train schedule, figuring out how long it would take to get from one place to another. <br> b) Calculating how much more expensive a computer would be after adding tax. <br> c) Calculating how many square meters of tile you need to cover a floor. <br> d) Understanding scientific tables presented in an article. <br> e) Solving an equation like $6 x^{2}+5=29$ <br> f) Finding the actual distance between two places on a map with a 1:10,000 scale. <br> g) Solving an equation like $2(\mathrm{x}+3)=(\mathrm{x}+3)(\mathrm{x}-3)$ <br> h) Calculating the power consumption of an electronic appliance per week. |  | mathematics tasks? <br> (Please check only one box in each row.) <br> a) Using a train timetable to work out how long it would take to get from one place to another. <br> b) Calculating how much cheaper a TV would be after a $30 \%$ discount. <br> c) Calculating how many square feet of tile you need to cover a floor. <br> d) Understanding graphs presented in newspapers. <br> e) Solving an equation like $3 x+5=17$ <br> f) Finding the actual distance between two places on a map with a 1:100 scale. <br> g) Solving an equation like $2(x+3)=(x+3)(x-3)$. <br> h) Calculating the gas mileage of a car. |
| :---: | :---: | :---: | :---: |
| Q70 | From 2009, adds items a) and c) <br> How many minutes, on average, are there in a class period for the | Q33a | How many minutes, on average, are there in a class period? <br> Minutes in a class period: |



| Q78 | Items b), f), h), i), k) have been deleted <br> How often do these things happen in your mathematics classes? <br> (Please check only one box in each row.) <br> Every Class Most Classes Some Classes Never or hardly ever <br> a) The teacher shows an interest in every student's learning. <br> b) The teacher gives extra help when students need it. <br> c) Students work from books and other printed material. <br> d) The teacher helps students with their learning. <br> e) The teacher continues teaching until the students understand. <br> f) The teacher gives students an opportunity to express opinions. | Q38 | How often do these things happen in your mathematics classes? <br> (Please check only one box in each row.) <br> a) The teacher shows an interest in every student's learning. <br> b) Students don't listen to what the teacher says. <br> c) The teacher gives extra help when students need it. <br> d) Students work from books and other printed material. <br> e) The teacher helps students with their learning. <br> f) There is noise and disorder. <br> g) The teacher continues teaching until the students understand. <br> h) The teacher has to wait a long time for students to quiet down. <br> i) Students cannot work well. <br> j) The teacher gives students an opportunityto express opinions. <br> k) Students don't start working for a longtime after the class begins. |
| :---: | :---: | :---: | :---: |



## 3. Items not included in the 2003 Student Questionnaire

The following items were not included in the PISA 2003 Student Questionnaire. Some items have appeared in other administrations of PISA (2000, 2006 or 2009) and this is noted where relevant.
[Not included in 2003 but administered in 2009.]
Did you attend pre-school?
Q6
No

Yes, for one year or less

Yes, for more than one year

In the last two full weeks of school, how many times did you skip school?
(Please check only one box.)
None

One or two times

Three or four times

Five or more times

In the last two full weeks of school, how many times did you miss school? Q12
(Please check only one box.)
None

One or two times

Three or four times

Five or more times

Please read the paragraph below. Then, indicate for each of the explanations that follow how likely it is to apply to you, given the situation.

You have been studying for a mathematics quiz and you are getting tired. Your friends want you to stop studying and go to a movie with them. Although you think it would be fun, you decide to continue studying for the quiz instead of going with them.
How likely are the following reasons for YOU doing this in the situation?
(Please check only one box in each row.)
a) I think that studying hard for my mathematics quiz is worth it because it will help me in my future career.
b) I just think that studying mathematics is fun.
c) I will not go out because my parents expect me to do well on my mathematics $\begin{array}{ccc}\text { Very } \\ \text { likety } & \text { Likely } & \text { Unlikely } \begin{array}{c}\text { Very } \\ \text { unlikely }\end{array}\end{array}$ quiz.
$\square 1$
$\square 2$
$\square 3$
$\square 1 \quad \square 2$
$\square 3$
d) I think that it is more important for to me to get better mathematics grades than to go out with my friends.

Please read the paragraph below. Then, indicate for each of the explanations that follow how likely it is to apply to you, given the situation.

You have decided to read a book about the history of mathematics in your free time that was not assigned in school.

How likely are the following reasons for YOU doing this in the situation?
(Please check only one box in each row.)

a) Reading about the history of mathematics in my free time will help me get better grades than the other students in my class.
b) Reading about the history of mathematics in my free time will help me obtain the job I want.
c) Reading about the history of mathematics in my free time is enjoyable.
d) My parents want me to read about the history of mathematics as much as I can.

Please read the paragraph below. Then, indicate for each of the explanations that follow how likely it is to apply to you, given the situation.

Your school has a mathematics club. In this club, students compete to solve mathematics problems against other schools. You have decided to join the club.

How likely are the following reasons that you have done this?
(Please check only one box in each row.)
a) My parents encouraged me to join the club.
b) I want to get the highest grade in all of my mathematics classes.
c) I am interested in solving
$\square 2$
$\square 3$
$\square 4$ mathematics problems.
d) It will give me practice mastering $\square 1$ $\square 2$ $\square 3$$\square 4$ the mathematics skills that I will
Very
likely

Likely Unlikely $\begin{gathered}\text { Very } \\ \text { unlikely }\end{gathered}$
need in my future career.

Please read the sentence below. Then, indicate for each of the explanations that follow how likely it is to apply to you, given the situation.

You decide to pay closer attention in your mathematics class than in your other classes.

How likely are the following reasons that you have done this?
(Please check only one box in each row.)

| Very |  |  |
| :---: | :---: | :---: |
| likety | Likely | UnlikelyVery <br> unlikely |

a) Paying attention in mathematics will be useful when I have a career.
b) Paying attention in mathematics will help me do better on exams than the other students in my class.
c) I pay attention in mathematics class $\square 1$ $\square 1$
$\square 2 \quad \square 3$ $\square 4$ because I enjoy it.
d) I pay attention in mathematics because my parents will be $\square 1$ $\square 2$ $\square 3$ $\square 4$ disappointed if I do not do well in mathematics.

Please read the paragraph below. Then, indicate for each of the explanations that follow how likely it is to apply to you, given the situation.

You have 25 hours a week to study for your classes. You usually study 12 hours a week for your mathematics class, almost the same as the total time spent studying science, English, foreign languages, and history combined.

How likely are the following reasons that you do this?
(Please check only one box in each row.)
Very
likely

Likely Unlikely | Very |
| :---: |
| unlikely |

a) I study more for mathematics class because learning many things in mathematics will help me get a job.
b) I study more for mathematics class because I want to get higher grades $\square 1$ $\square 2$ $\square 3$than anyone else.
c) I study more for mathematics class
$\square 1$ $\square 2$ $\square 3$because mathematics is fun.
d) I study more for mathematics class
$\square 1$ $\square 2$ $\square 3$ $\square 4$ because my parents make me.

Thinking about how people important to you view mathematics: How strongly

## Q36

 do you agree with the following statements?(Please check only one box in each row.)
a) Most of my friends do well in mathematics.
b) Most of my friends work hard at mathematics.
c) My friends enjoy taking mathematics$\square 2$
$\square 3$
$\square 4$ tests.
d) My parents believe it's important for me $\square 1$ $\square 2$ $\square 3$ $\square 4$ to study mathematics.
e) My parents believe that mathematics is important for my career.
f) My parents like mathematics.$\square 2$ $\square 3$ $\square 4$
g) My teachers believe it is important for
me to study mathematics.
h) My teachers think it is important for me to do well in mathematics.
i) The people in my life whose opinions I
$\square 1$ $\square 1$ $\qquad$ $\square 3$ $\square 4$ value are good at mathematics.
j) People whose opinions I value think that $\square 1$ $\square 2$ $\square 3$ $\square 4$ mathematics is an important subject.

Thinking about your friends: To what extent do you agree with the following statements?
(Please check only one box in each row.)

|  | Strongly agree | Agree | Disagree | Strongly disagree |
| :---: | :---: | :---: | :---: | :---: |
| a) My friends enjoy reading about mathematics. | $\square 1$ | $\square 2$ | $\square 3$ | $\square 4$ |
| b) My friends look forward to their mathematics lessons. | $\square 1$ | $\square 2$ | $\square 3$ | $\square 4$ |
| c) My friends do mathematics because they enjoy it. | $\square 1$ | $\square 2$ | $\square 3$ | $\square 4$ |
| d) My friends are interested in learning mathematics. | $\square 1$ | $\square 2$ | $\square 3$ | $\square 4$ |
| e) My friends think making an effort in mathematics is worth it because it will help them later on. | $\square 1$ | $\square 2$ | $\square 3$ | $\square 4$ |
| f) My friends think mathematics will help them with the subjects that they want to study further on in school. | $\square 1$ | $\square 2$ | $\square 3$ | $\square 4$ |
| g) My friends believe mathematics is an important subject for them to study. | $\square 1$ | $\square 2$ | $\square 3$ | $\square 4$ |

h) My friends think that studying$\square 2$
$\square 3$
7 mathematics will help them get a job.

## If you had to choose between the following options which would you prefer?

(Please show how close your opinion is to the statements below by checking one of the boxes numbered 1to 7 in each row.)

| a) I am interested in mathematics lessons more than in any other lessons. | $\square 01$ | $\square 02$ | $\square 03$ | $\square 04$ | $\square 05$ | $\square 06$ | $\square 07$ | I am interested in mathematics lessons less than in any other lessons. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| b) I would be happy to drop mathematics if I could. | $\square 01$ | $\square 02$ | $\square 03$ | $\square 04$ | $\square 05$ | $\square 06$ | $\square 07$ | I would be sad to drop mathematics if I had to. |
| c) I enjoy reading about mathematics. | $\square 01$ | $\square 02$ | $\square 03$ | $\square 04$ | $\square 05$ | $\square 06$ | $\square 07$ | I avoid reading about mathematics. |
| d) I plan to do as much mathematics as possible during my education. | $\square 01$ | $\square 02$ | $\square 03$ | $\square 04$ | $\square 05$ | $\square 06$ | $\square 07$ | I plan to do as little mathematics as possible during my education. |
| e) I avoid doing mathematics problems and puzzles outside mathematics lessons. | $\square 01$ | $\square 02$ | $\square 03$ | $\square 04$ | $\square 05$ | $\square 06$ | $\square 07$ | I enjoy doing mathematics problems and puzzles outside mathematics lessons. |

To what extent do you agree with the following statements?
(Please check only one box in each row.)

| Strongly | Neither <br> agree | noree |
| :---: | :---: | :---: | | Strongly |
| :---: |
| disagre |

a) I am interested in mathematics lessons $\quad \square 01 \quad \square 02 \quad \square 03 \quad \square 04 \quad \square 05 \quad \square 06 \quad \square 07$ more than in any other lessons.
b) I would be happy to $\quad \square 01 \quad \square 02 \quad \square 03 \quad \square 04 \quad \square 05 \quad \square 06 \quad \square 07$ drop mathematics if I could.
c) I enjoy reading about
 mathematics.
d) I plan to do as much mathematics as $\square 01 \quad \square 02 \quad \square 03$
$\square 04$ $\square 05 \quad \square 06$ $\square 07$ possible during my education.
e)

I avoid doing mathematics problems $\quad \square 01 \quad \square 02 \quad \square 03 \quad \square 04 \quad \square 05 \quad \square 06 \quad \square 07$ and puzzles outside mathematics lessons.
f) I look forward to my $\quad \square 01 \quad \square 02 \quad \square 03 \quad \square 04 \quad \square 05 \quad \square 06 \quad \square 07$ mathematics lessons.

To what extent do you agree with the following statements?
(Please check only one box in each row.)
Strongly
agree
Neither
agree
nor
disagre

Strongly
disagre
a) I am interested in mathematics lessons $\quad \square 01 \quad \square 02 \quad \square 03 \quad \square 04 \quad \square 05 \quad \square 06 \quad \square 07$ less than in any other lessons.
b) I would be sad to $\square 01 \square 02 \square 03 \square 04 \square 05 \square 06$ drop mathematics if I had to.
c) I avoid reading abou mathematics.
d) I plan to do as little mathematics as $\square 01 \quad \square 0$ possible during my education.
e) I enjoy doing $\begin{array}{llll}\text { mathematics } & \square 01 \quad \square 02 \quad \square 03 \quad \square 04 \quad \square 05 \quad \square 06 \quad \square 07\end{array}$ problems and puzzles outside mathematics lessons.
I do not look forward
to my mathematics $\quad \square 01 \quad \square 02 \quad \square 03 \quad \square 04 \quad \square 05 \quad \square 06 \quad \square 07$ lessons.

Here we briefly describe some students. Please read each description and check the box on each line that shows how much each student is like you.

## (Please check only one box in each row.)

|  | Very much like me | $\begin{aligned} & \text { Like } \\ & \text { me } \end{aligned}$ | Somewhat like me | A little like me | Not <br> like <br> me | Not like meat all |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| a) This student is interested in mathematics lessons more than in any other lessons. | $\square 1$ | $\square 2$ | $\square 3$ | $\square 4$ | $\square 5$ | $\square 6$ |
| b) This student would be happy to drop mathematics if he or she could. | $\square 1$ | $\square 2$ | $\square 3$ | $\square 4$ | $\square 5$ | $\square 6$ |
| c) This student enjoys reading about mathematics. | $\square 1$ | $\square 2$ | $\square 3$ | $\square 4$ | $\square 5$ | $\square 6$ |

d) This student plans to do as much mathematics as possible during his or her education.
e) This student avoids doing mathematics problems and puzzles outside mathematics lessons.
f) This student looks forward to $\square 1$ $\square 2$ his or her mathematics lessons.
$\square 1$
$\square 2$
$\qquad$
6
$\square 3$
$\square 4$ $\square 5$
$\square 6$

Thinking about your mathematics lessons: To what extent do you agree with the following statements?
(Please check only one box in each row.)
a) If I invest enough effort I can succeed
Strongly
agree

Agree
Disagree
Strongly disagree
a) in mathematics.
b) Whether or not I do well in
$\square 1$ mathematics is completely up to me.

Family demands or other problems
c) prevent me from putting a lot of timeinto my mathematics work.
d) If I had different teachers, I would try
harder in mathematics.
e) If I wanted to I could perform well in mathematics.
f) $\begin{aligned} & \text { I perform poorly in mathematics } \\ & \text { whether or not I study for my exams. }\end{aligned}$

## You are a student in the following situation:

Each week, the your mathematics teacher gives a short quiz. Recently you performed poorly on these quizzes. Today you are trying to figure out why.

How likely are you to have these thoughts or feelings in this situation?
(Please check only one box in each row.)

|  | Very likely | Likely | Slightly likely | Not at all likely |
| :---: | :---: | :---: | :---: | :---: |
| a) I'm not very good at solving mathematics problems. | $\square 1$ | $\square 2$ | $\square 3$ | $\square 4$ |
| b) I did not make a special effort to study this material in the mathematics textbook. | $\square 1$ | $\square 2$ | $\square 3$ | $\square 4$ |
| c) My teacher did not explain the concepts well this week. | $\square 1$ | $\square 2$ | $\square 3$ | $\square 4$ |
| d) This week I made bad guesses on the quiz. | $\square 1$ | $\square 2$ | $\square 3$ | $\square 4$ |
| e) Sometimes the course material is too hard. | $\square 1$ | $\square 2$ | $\square 3$ | $\square 4$ |
| f) I have not been studying enough lately. | $\square 1$ | $\square 2$ | $\square 3$ | $\square 4$ |
| g) The teacher did not get students interested in the material. | $\square 1$ | $\square 2$ | $\square 3$ | $\square 4$ |
| h) Sometimes I am just unlucky. | $\square 1$ | $\square 2$ | $\square 3$ | $\square 4$ |

## You are a student in the following situation:

Last week you were having difficulty understanding a new concept presented by the mathematics teacher. This week, however, you are beginning to catch on. Today you are trying to figure out why.

How likely are you to have these thoughts or feelings in this situation
(Please check only one box in each row.)

|  | Very <br> Likely | Likely <br> Slightly <br> likely | Not at <br> all likely |  |
| :--- | :--- | :--- | :---: | :---: |
| a) I am very good at solving mathematics <br> problems. | $\square 1$ | $\square 2$ | $\square 3$ | $\square 4$ |
| b) I made a special effort to study this |  |  |  |  |
| material in the mathematics textbook. | $\square 1$ | $\square 2$ | $\square 3$ | $\square 4$ |
| c) The teacher explained it well this time. | $\square 1$ | $\square 2$ | $\square 3$ | $\square 4$ |
| d) This week I made good guesses. | $\square 1$ | $\square 2$ | $\square 3$ | $\square 4$ |
| e) I realized the course material was easy |  |  |  |  |
| after all. | $\square 1$ | $\square 2$ | $\square 3$ | $\square 4$ |
| f) I actually studied enough during the past |  |  |  |  |
| week. | $\square 1$ | $\square 2$ | $\square 3$ | $\square 4$ |
| g) The teacher got me interested in the | $\square$ | $\square 1$ | $\square 2$ | $\square 3$ |

Thinking about the mathematics you do for school: To what extent do you agree with the following statements?
(Please check only one box in each row.)

|  | Strongly <br> agree | Agree | Disagree | Strongly <br> disagree |
| :--- | :---: | :---: | :---: | :---: |
| a) I have my homework finished in time <br> for mathematics class. | $\square 1$ | $\square 2$ | $\square 3$ | $\square 4$ |
| b) I work hard on my mathematics |  |  |  |  |
| homework. | $\square 1$ | $\square 2$ | $\square 3$ | $\square 4$ |
| c) I am prepared for my mathematics |  |  |  |  |
| exams. | $\square 1$ | $\square 2$ | $\square 3$ | $\square 4$ |
| d) I study hard for mathematics quizzes. | $\square 1$ | $\square 2$ | $\square 3$ | $\square 4$ |
| e) I keep studying until I understand |  |  |  |  |
| mathematics material. | $\square 1$ | $\square 2$ | $\square 3$ | $\square 4$ |
| f) I pay attention in mathematics class. | $\square 1$ | $\square 2$ | $\square 3$ | $\square 4$ |
| g) I listen in mathematics class. | $\square 1$ | $\square 2$ | $\square 3$ | $\square 4$ |
| h) I avoid distractions when I am |  |  |  |  |
| studying mathematics. | $\square 1$ | $\square 2$ | $\square 3$ | $\square 4$ |
| i) I keep my mathematics work well | $\square 1$ | $\square 2$ | $\square 3$ | $\square 4$ |
| organized. | $\square$ |  |  |  |

Thinking about your views on mathematics: To what extent do you agree with the following statements?
(Please check only one box in each row.)
a) I plan on studying hard in mathematics.
b) I intend to seek external help to improve my mathematics skills.
c) I intend to get the best possible score on
Strongly
agree all of my mathematics exams.
d) I plan to do all I can to get good grades inmathematics.
e) I intend to become better than my
$\square 1$ friends at mathematics.
f) I intend to take additional mathematics courses.
g) I plan on practicing mathematics problems each night on my own.
h) I am willing to do more work in my $\square 1$ mathematics classes than is required.
i) I plan on taking as many mathematics classes as I can during my education.
j) I am planning on pursuing a career that $\square 1$ involves mathematics.

For each pair of statements, please choose the item that best describes you.
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(Please check only one box in each row.)

I intend to take additional
a) mathematics courses after school finishes.

I plan on majoring in a subject in
b) college that requires mathematics skills.
c) I am willing to study harder in my mathematics classes than is required.

I plan on taking as many
d) mathematics classes as I can during my education.
e) I am planning on pursuing a career that involves a lot of mathematics.

1 I intend to take additional
$\square 2$
English courses after school
finishes.
$\square 1 \quad$ I plan on majoring in a subject in college that requires science skills.

61 I am willing to study harder in my English classes than is required.
$\square 1$ I plan on taking as many science classes as I can during my education.
$\square 1$
I am planning on pursuing a career that involves a lot of science.

## How often do do the following things inside and outside of school hours?

(Please check only one box in each row.)

|  | Always or <br> almost <br> always | Often | Sometime <br> s | Never or <br> rarely |
| :--- | :---: | :---: | :---: | :---: |
| a) I talk about mathematics problems <br> with my friends. | $\square 1$ | $\square 2$ | $\square 3$ | $\square 4$ |
| b) I help my friends with mathematics. | $\square 1$ | $\square 2$ | $\square 3$ | $\square 4$ |
| c) I do mathematics as an <br> extracurricular activity. | $\square 1$ | $\square 2$ | $\square 3$ | $\square 4$ |
| d) I take part in mathematics |  |  |  |  |
| competitions. | $\square 1$ | $\square 2$ | $\square 3$ | $\square 4$ |
| e) I do mathematics more than 2 hours |  |  |  |  |
| a day outside of school. | $\square 1$ | $\square 2$ | $\square 3$ | $\square 4$ |
| f) I play chess. | $\square 1$ | $\square 2$ | $\square 3$ | $\square 4$ |
| g) I program computers. | $\square 1$ | $\square 2$ | $\square 3$ | $\square 4$ |
| h) I do mathematics even though I do | $\square 1$ | $\square 2$ | $\square 3$ | $\square 4$ |
| not like it. | $\square$ | $\square 1$ | $\square 2$ | $\square 3$ |

## For each pair of items, please choose the one that best describes you.

## (Please check only one box in each row.)

I do my best work in mathematics
a) when I try to do better than others.
b)

I would like to be the best in my class in mathematics.

When we work on a project in mathematics, I think that it is a good idea to combine the ideas of all the students in a group.
d) In mathematics, I enjoy helping others to work well in a group.

In mathematics I always try to do
e) better than the other students in my class.

I do my best work in mathematics when I work with other students.

In mathematics I enjoy working with other students in groups.

I try very hard in

I make a real effort in mathematics because I want to be one of the best.

In mathematics I learn most when I work with other students in my class.
mathematics because I want to do better on the exams than the others.

For each group of three items, please choose the item that best describes your approach to mathematics.
(Please check only one box in each row.)

When I study for a mathematics test, I
a) try to work out what are the most important parts to learn.
b)

When I study mathematics, I try
to figure out which concepts I still have not understood properly.

## c)

When I study mathematics, I try to relate the work to things I have learned in other subjects.

When I study for a mathematics test, I try to understand new concepts by relating them to things I already know.

When I study mathematics, I think $\quad \square 2$ of new ways to get the answer.

When I study mathematics, I start by working out exactly what I need to learn.

When I study for a $\square 2$ mathematics test, $\square 3$ I learn as much as I can by heart.

When I study mathematics, I make myself check to see if I remember the work I have already done.

When I study mathematics, I go over some problems so often that I feel as if I could solve them in my sleep.

When I cannot understand something in mathematics, I $\square 3$ always search for more information to clarify the problem.

Thinking about your views on mathematics: To what extent do you agree with the following statements?
(Please check only one box in each row.)

|  | Strongly agree | Agree | Disagree | Strongly disagree |
| :---: | :---: | :---: | :---: | :---: |
| a) I try to use test-taking strategies that have worked for me in the past when I take a mathematics test. | $\square 1$ | $\square 2$ | $\square 3$ | $\square 4$ |
| b) After I solve a mathematics test question, I ask myself if there was an easier way to do it. | $\square 1$ | $\square 2$ | $\square 3$ | $\square 4$ |
| c) I pace myself in order to have enough time on mathematics tests. | $\square 1$ | $\square 2$ | $\square 3$ | $\square 4$ |
| d) I consciously focus my attention on important information in the questions on mathematics tests. | $\square 1$ | $\square 2$ | $\square 3$ | $\square 4$ |
| e) I read the instructions carefully before I begin a mathematics test. | $\square 1$ | $\square 2$ | $\square 3$ | $\square 4$ |
| f) I think of several ways to solve a mathematics problem and choose the best one when taking a mathematics test. | $\square 1$ | $\square 2$ | $\square 3$ | $\square 4$ |
| g) When I get confused during a mathematics test, I stop and reread the question. | $\square 1$ | $\square 2$ | $\square 3$ | $\square 4$ |
| h) I know what kind of information is most important in solving a mathematics test question. | $\square 1$ | $\square 2$ | $\square 3$ | $\square 4$ | mathematics test question.

i) I use helpful strategies automatically during a mathematics test.

## How many hours do you typically spend per week attending out-of-school-

Q56 time lessons in the following subjects?

These are only lessons in subjects that you are also learning at school, that you spend extratime extra time outside of normal school hours. The lessons may be given at your school, at your home, or somewhere else.
(Please check only one box in each row.)

| I do not <br> attend <br> out-of- <br> school <br> time |  | 4or more <br> but less <br> than 6 |  |
| :---: | :---: | :---: | :---: |
| lessons in <br> this <br> subject | Less than <br> 2 hours a <br> week | 2 or more <br> but less <br> than 4 <br> hoursa <br> week | week |$\quad$| 6 or more |
| :---: |
| $\square_{1}$ |

For those subjects in which you attend out-of-school lessons, please indicate whether these lessons are either remedial or enriching in nature.

Remedial lessons are providing help for students who have problems in learning the respective subject, while enrichment lessons are providing additional, mostly demanding content for students with high achievement in the subject.
(Please check only one box in each row.)
a) English
b) Mathematics
c) Science

Remedial
lessons
$\square_{1}$
$\square_{1}$
$\square_{1}$
d) Other school subjects
e) Study skills

Thinking about all school subjects: On average, how many hours do you Q58 spend each week on the following?

When answering, include time spent on the weekend too.
a) Homework or other material assigned by your teachers
b) Out of the time spent in (a), how many hours do you work on your homework with somebody overlooking and providing help if necessary ("guided homework"), either at school or ___ hours per week elsewhere?
c) Work with a personal tutor (whether paid or not)
$\qquad$ hours per week
d) Attend out of school classes organized by a commercial company and paid for by your parents
$\qquad$ hours per week
$\qquad$ hours per week
e) Study with a parent or other family member
$\qquad$
f) Practice content from school lessons by working on a computer (e.g., learn vocabulary with training software)

Thinking only about mathematics: On average, how many hours do you Q59 spend each week on the following?

When answering, include time spent on the weekend too.
a) Homework or other material assigned by your teachers
b) Out of the time spent in (a), how many hours do you work on your homework with somebody overlooking and providing help if necessary ("guided homework"), either at school or elsewhere?
c) Work with a personal tutor (whether paid or not) $\qquad$ hours per week
d) Attend out of school classes organized by a commercial company and paid for by your parents
$\qquad$ hours per week
e) Study with a parent or other family member
$\qquad$ hours per week
f) Practice mathematics using online software(e.g., $\qquad$ hours per week learn vocabulary with training software)

Thinking about mathematical concepts: How familiar are you with the following Q63 terms?
(Please check only one box in each row.)

|  | Never <br> heard of <br> it | Heard of <br> it once or <br> twice | Heard of <br> it afew <br> times <br> $\square 1$ | Heard of <br> it often <br> $\square 2$ |
| :--- | :--- | :---: | :--- | :---: |
| a) Exponential Function | $\square 1$ | $\square 2$ | $\square 3$ | Know it <br> well, <br> ndersta the <br> concept <br> $\square 5$ |
| b) Divisor | $\square 1$ | $\square 2$ | $\square 3$ | $\square 4$ |

The next six questions are about your experience with different kinds of mathematics problems in school. You will see a mathematics problem, followed by some questions about your experience with the problem.

Please read each of the problems. You do NOT need to solve them.
Read the problem in the box below. Then answer the questions that follow Q64t.


We want to know about your experience with this type of problem in school. Do not solve it!
(Please check only one box in each row.)
Frequently $\underset{S}{\text { Sometime }} \quad$ Rarely $\quad$ Never $s$

How often have you
a) encountered this type of $\square 1$
$\square 2$
$\square 3$
$\square 4$ problem in your mathematics lessons?

How often have you
b encountered this type of
$\square 1$
$\square 2$
$\square 3$
$\square 4$
) problem in the tests you have taken in school?

Read the problem in the box below. Then answer the questions that follow it. Q65



Describe a method for estimating the area of figure C .

We want to know about your experience with this type of problem in school. Do not solve it!
(Please check only one box in each row.)
Frequently Sometime Rarely Never

How often have you encountered
a) this type of problem in your mathematics lessons?

How often have you encountered
b) this type of problem in the tests you have taken in school?
$\square 1$
$\square 2$
$\square 3$
$\square 4$

## you have taken in school?

$\square 2$
$\square 3$
$\square 4$

## Read the problem in the box below. Then answer the questions that follow it.

A carpenter has 32 meters of timber and wants to make a border around a garden bed. He is considering the following designs for the garden bed.


We want to know about your experience with this type of problem in school. Do not solve it!
(Please check only one box in each row.)
Frequently Sometimes Rarely Never

How often have you encountered
a) this type of problem in your mathematics lessons?
b) How often have you encountered
this type of problem in the tests
you have taken in school?

## Read the problem in the box below. Then answer the questions that follow it.

A woman in the hospital receives an injection of penicillin. Her body gradually breaks the penicillin down so that one hour after the injection only $60 \%$ of the penicillin will remain active.

This pattern continues: at the end of each hour only $60 \%$ of the penicillin that was present at the end of the previous hour remains active.

Suppose the woman is given a dose of 300 milligrams of penicillin at 8 o'clock in the morning.

Complete this table showing the amount of penicillin that will remain active in the woman's blood at intervals of one hour from 8:00 until 11:00.


We want to know about your experience with this type of problem in school. Do not solve it!
(Please check only one box in each row.)
Frequently Sometime Rarely Never
$s$

How often have you
a) encountered this type of problem in your mathematics lessons?

How often have you
b) encountered this type of $\square 1$ $\square 2$ $\square 3$problem in the tests you have taken in school?

## Read the problem in the box below. Then answer the questions that follow it.



We want to know about your experience with this type of problem in school. Do not solve it!
(Please check only one box in each row.)
$\underset{y}{\text { Frequentl }} \underset{s}{\text { Sometime }} \quad$ Rarely $\quad$ Never

How often have you encountered
a) this type of problem in your $\qquad$ $\square 2$
$\square 3$
$\square 4$ mathematics lessons?

How often have you encountered
b) this type of problem in the tests you have taken in school?

Read the problem in the box below. Then answer the questions that follow Q69 it.


We want to know about your experience with this type of problem in school. Do not solve it!
(Please check only one box in each row.)

Frequently Sometime Rarely Never

How often have you encountered
a) this type of problem in your mathematics lessons?

How often have you encountered
b) this type of problem in the tests$\square 2$
$\square 3$
$\square 4$
you have taken in school?
[The following item was not administered in 2003 but was administered in 2009.]

On average, about how many students attend your English class?
Q73
$\qquad$ students

The next four questions are about your experience with different kinds of mathematics problems in school. You will see descriptions of problems and gray-colored boxes, each containing a mathematics problem.

Please read each of the problems. You do NOT need to solve them.

In the box is a series of problems. Each requires you to understand a problem written in text and perform the appropriate calculations. Usually the problem talks about practical situations, but the numbers and people and places mentioned are made up. All the information you need is given. Here are two examples:

1) Ann is two years older than Betty, and Betty is four times as old as Sam. When Betty is 30 , how old is Sam?
2) Mr. Smith bought a television and a bed. The television cost $\$ 625$, but he got a $10 \%$ discount. The bed cost $\$ 200$. He paid $\$ 20$ for delivery. How much money did Mr. Smith spend?

We want to know about your experience with these types of word problems in school. Do not solve it!
(Please check only one box in each row.)
Frequentl Sometime $\quad$ Rarely $\quad$ Never

How often have you encountered
a) these types of problems in your mathematics lessons?

How often have you encountered $\square 1$
$\square 2$ $\square 3$ $\square 4$
b) these types of problems in the tests you have taken in school?

Below are examples of another set of mathematical skills.

1) Solve $2 x+3=7$.
2) Find the volume of a box with sides $3 m, 4 m$ and $5 m$.

We want to know about your experience with these types of items in school. Do not solve it!
(Please check only one box in each row.)
Frequentl Sometime Rarely Never

How often have you
a)
encountered these types of
$\square 1$
$\square 2$
$\square 3$
$\square 4$
problems in your
mathematics lessons?

How often have you
b) encountered these types of
$\square 1$
$\square 2$
$\square 3$
$\square 4$
problems in the tests you have taken in school?

In the next type of problems, you have to use mathematical knowledge and draw conclusions. There is no practical application provided. Here are two examples.

1) Here you need to use geometrical theorems:

2) Here you have to know what a prime number is:
$\square$
If n is any number: can $(\mathrm{n}+1)^{2}$ be a prime number?

We want to know about your experience with these types of problems in school. Do not solve it!
(Please check only one box in each row.)
Frequently $\underset{s}{\text { Sometime }} \quad$ Rarely $\quad$ Never

How often have you
a) encountered these types of problems in your mathematics lessons?
b) How often have you encountered these types of problems in the tests you

## have taken in school?

In this type of problem, you have to apply suitable mathematical knowledge to find a useful answer to a problem that arises in everyday life or work. The data and information are about real situations. Here are two examples.

Example 1:
A TV reporter says "This graph shows that there is a huge increase in the number of robberies from 1998 to 1999."


Do you consider the reporter's statement to be a reasonable interpretation of the graph? Give an explanation to support your answer.

## Example 2:

For years the relationship between a person's recommended maximum heart rate and the person's age was described by the following formula:

Recommended maximum heart rate $=220$ - age

Recent research showed that this formula should be modified slightly. The new formula is as follows:

We want to know about your experience with these types of problems in school. Do not solve it!
(Please check only one box in each row.)
Frequently Sometimes Rarely Never
How often have you encountered
a) these types of problems in your mathematics lessons?

How often have you encountered
b) these types of problems in the
tests you have taken in school?

## How often do these things happen with your mathematics homework?

(Please check only one box in each row.)
a) My mathematics teacher discusses mistakes with us to help us learn from our mistakes.
b) My mathematics teacher gives feedback on how we solve our homework problems.
c) My mathematics teacher rewards
1
$\square 2$
$\square 3$
$\square 4$ $\square 1$
$\square 2$
$\qquad$ (Pleasechek only

|  | Always or almost always | Often | $\underset{s}{\text { Sometime }}$ | Never |
| :---: | :---: | :---: | :---: | :---: |
| a) My mathematics teacher discusses mistakes with us to help us learn from our mistakes. | $\square 1$ | $\square 2$ | $\square 3$ | $\square 4$ |
| b) My mathematics teacher gives feedback on how we solve our homework problems. | $\square 1$ | $\square 2$ | $\square 3$ | $\square 4$ |
| c) My mathematics teacher rewards finding "new" approaches to solving problems - approaches that we have to find on our own and that have not been explicitly taught. | $\square 1$ | $\square 2$ | $\square 3$ | $\square 4$ |
| d) My mathematics teacher gives homework problems that require us to go beyond what has been explicitly taught in class. | $\square 1$ | $\square 2$ | $\square 3$ | $\square 4$ |
| e) My mathematics teacher rewards the effort that we put into our | $\square 1$ | $\square 2$ | $\square 3$ | $\square 4$ |

homework regardless of whether we
get the right answer.

# Thinking about the mathematics teacher that taught your last mathematics class: How often do these things happen? 

(Please check only one box in each row.)
a) The teacher sets clear goals for our learning.
b) The teacher asks me or my classmates to present our thinking or reasoning at some length.
c) The teacher gives different work to classmates that have difficulties learning and/or to those who can advance faster.
d) The teacher assigns projects that require at least one week to complete.
e) The teacher tells me about how well I am doing in my mathematics class.
f) The teacher asks questions to check whether we have understood what was taught.
g) The teacher has us work in small groups to come up with joint solutions to a problem or task.
h) At the beginning of a lesson, the teacher presents a short summary of the previous lesson.
i) The teacher reviews the $\square 1$ homework that we prepare.

| Always or <br> almost <br> always | Often | Sometime |
| :---: | :---: | :---: | :---: |
| $s$ |  |  |$\quad$ Never

1
$\square 2$
$\qquad$ $\square 2$
$\square 3$
$\square 4$ $\square 1$


1
$\square 2$
$\square 2$

$\square 2$
$\square 2$
$\square 1$

1
$\square 2$
$\square 3$
$\square 4$

1
$\square 4$
$\square 3$
$\square 3$
$\square 4$
$\square 3$
$\square 4$
$\square 3$
$\square 4$
$\square 4$
$\square 4$
$\square 3$



4
j) The teacher asks us to help plan classroom activities or topics.
k) The teacher gives me feedback on my strengths and weaknesses in mathematics.

1) The teacher tells us what is expected of us when we get a test, quiz, or assignment.
m) The teacher checks our workbooks.
n) The teacher has us argue about different approaches to solving a mathematics problem.
o) The teacher tells us what we have to learn.
p) The teacher gives a test or quiz to assess student learning.
q) The teacher tells me what I need to do to become better in mathematics.
r) The teacher has us solve realistic problems from daily life.

Thinking about the mathematics teacher that taught your last mathematics class: To what extent do you agree with the following statements?
(Please check only one box in each row.)
Strongly

agree Agree Disagree | Strongly |
| :---: |
| disagree |

a) The teacher asks questions that make us reflect on the problem.
b) The teacher gives tasks that only involve calculations.
c) The teacher gives problems with definite solutions.
d) The teacher gives problems that require us to think about them for an extended time.
e) The teacher asks us to decide on our own procedures for solving complex problems.
f) The teacher presents problems for which there is no immediately obvious method of solution.
g) The teacher presents problems in different contexts so that students $\square 1$ $\square 2$ $\square 3$ $\qquad$ know whether they have understood the concepts.
h) The teacher helps us to learn from$\square 2$
$\square 3$
$\square 4$ mistakes we have made.
i) The teacher asks us to explain how$\square 2$ $\square 3$ $\qquad$ we have solved a problem.
j) The teacher presents problems that require students to apply what they
$\qquad$ $\square 2$
$\square 3$
 have learned to new contexts.
k) The teacher gives problems that can $\square 1$ $\square 2$ $\square 3$ 4 be solved in several different ways.

Below you will find descriptions of three mathematics teachers. Read each of the descriptions of these teachers. Then let us know to what extent you agree with the final statement.
(Please check only one box in each row.)
Strongly

agree Agree Disagree | Strongly |
| :---: |
| disagree |

a) Ms. Anderson assigns mathematics homework every other day. She always gets the answers back to students before examinations. Ms. Anderson is concerned about her students' learning.
b) Mr. Crawford assigns mathematics homework once a week. He always gets the answers back to students before examinations. Mr. Crawford is concerned about his students' learning.
c) Ms. Dalton assigns mathematics homework once a week. She never gets the answers back to students before examinations. Ms. Dalton is concerned about her students' learning.

Thinking about the mathematics teacher who taught your last mathematics class: To what extent do you agree with the following statements?
(Please check only one box in each row.)
a) My teacher lets students know they need to
$\square 1$ work hard.
b) My teacher provides extra help whenneeded.
c) My teacher helps students with their $\square 1$ 1 $\square 2$ $\square 3$ Strong
ly
disagr
ee Strongly
agree
learning.
d) My teacher gives students the opportunity
$\square 1$
$\square 2$ $\square 3$ $\qquad$ to express opinions.

Below you will find descriptions of three mathematics teachers. Read each of the
Q85 descriptions of these teachers. Then let us know to what extent you agree with the final statement.
(Please check only one box in each row.)
Strongly

agree Agree Disagree | Strongly |
| :---: |
| disagree |

a) The students in Ms. Franklin's class frequently interrupt her lessons. She also always arrives to class five minutes early. Ms. Franklin is in control of her classroom.
b) The students in Ms. Harris' class are calm and orderly. She always arrives on time to class. Ms. Harris is in control of her classroom.
c) The students in Mr. Reynolds' class frequently interrupt his lessons. As a result, he often arrives to class five minutes late. Mr. Reynolds is in control of his classroom.

Thinking about the mathematics teacher who taught your last mathematics class:
Q86 To what extent do you agree with the following statements?
(Please check only one box in each row.)

|  | Strongly <br> agree | Agree | Disagree | Strongly <br> Disagree |
| :--- | :---: | :---: | :---: | :---: |
| a) My teacher gets students to listen to him or <br> her. | $\square 1$ | $\square 2$ | $\square 3$ | $\square 4$ |
| b) My teacher keeps the class orderly. | $\square 1$ | $\square 2$ | $\square 3$ | $\square 4$ |
| c) My teacher starts the class period on time. | $\square 1$ | $\square 2$ | $\square 3$ | $\square 4$ |
| d) The teacher has to wait a long time for | $\square 1$ | $\square 2$ | $\square 3$ | $\square 4$ |
| students to quiet down. |  | $\square$ |  |  |

Thinking about your school: To what extent do you agree with the following statements?
(Please check only one box in each row.)

|  | Strongly <br> agree | Agree | Disagree | Strongly <br> disagree |
| :--- | :---: | :---: | :---: | :---: |
| a) I feel like an outsider (or left out of <br> things) at school. | $\square 1$ | $\square 2$ | $\square 3$ | $\square 4$ |
| b) I make friends easily at school. | $\square 1$ | $\square 2$ | $\square 3$ | $\square 4$ |
| c) I feel like I belong at school. | $\square 1$ | $\square 2$ | $\square 3$ | $\square 4$ |
| d) I feel awkward and out of place in my |  |  |  |  |
| school. | $\square 1$ | $\square 2$ | $\square 3$ | $\square 4$ |
| e) Other students seem to like me. | $\square 1$ | $\square 2$ | $\square 3$ | $\square 4$ |
| f) I feel lonely at school. | $\square 1$ | $\square 2$ | $\square 3$ | $\square 4$ |
| g) I feel happy at school. | $\square 1$ | $\square 2$ | $\square 3$ | $\square 4$ |
| h) Things are ideal in my school. | $\square 1$ | $\square 2$ | $\square 3$ | $\square 4$ |
| i) I am satisfied with my school. | $\square 1$ | $\square 2$ | $\square 3$ | $\square 4$ |

## Thinking about your school: To what extent do you agree with the following statements?

(Please check only one box in each row.)

|  | Strongly <br> agree | Agree | Disagree | Strongly <br> disagree |
| :--- | :---: | :---: | :---: | :---: |
| a) It is good for me to pass my classes. | $\square 1$ | $\square 2$ | $\square 3$ | $\square 4$ |
| b) Trying hard in school will help me get |  |  |  |  |
| a good job. | $\square 1$ | $\square 2$ | $\square 3$ | $\square 4$ |
| c) Trying hard in school will help me get |  |  |  |  |
| into a good college. | $\square 1$ | $\square 2$ | $\square 3$ | $\square 4$ |
| d) I enjoy receiving good grades. | $\square 1$ | $\square 2$ | $\square 3$ | $\square 4$ |
| e) Trying hard in school is important. | $\square 1$ | $\square 2$ | $\square 3$ | $\square 4$ |
| f) Trying hard in school will not do any |  |  |  |  |
| good. | $\square 1$ | $\square 2$ | $\square 3$ | $\square 4$ |

Thinking about how others view your school: To what extent do you agree
Q91 with the following statements?
(Please check only one box in each row.)
Strongly

agree Agree Disagree | Strongly |
| :---: |
| disagree |

My parents believe that it is
a) beneficial for me to try as hard as I can to do well in school this year.
b) My parents believe that it is$\square 2$$\square$
c) My friends enjoy studying for
their classes.
d) My friends try to do better than each other in school.

My friends think that trying
e) hard in school will not do any good.

My parents think I will get
f) better grades if I try harder in school.
$\square 1$
$\square 2$
$\square 3$
$\square 4$ $\square 1$ $\square 2$ $\square 3$ $\square 4$ Thinking about your school: To what extent do you agree with the following statements?
(Please check only one box in each row.)
Strongly

agree Agree Disagree | Strongly |
| :---: |
| disagree |

a) If I invest enough effort I can succeed$\quad 1$ in school.
b) It is completely my choice whether ornot I do well in school.

Family demands or other problems
c) prevent me from putting a lot of time $\square 1$ into my school work.
d) If I had different teachers, I would try $\quad \square 1$ harder in school.
e) If I wanted to I could perform well in
school.
$\square 1$
$\begin{array}{llll}\text { f) } \begin{array}{l}\text { I perform poorly in school whether or } \\ \text { not I study for my exams. }\end{array} \quad \square 1 \quad \square 2 & \square 3 & \square 4\end{array}$

Thinking about your school: To what extent do you agree with the following statements?
(Please check only one box in each row.)
a)

I intend to study every night for the remainder of the school year.

I will turn in all of my homework on
b) time for the remainder of the schoolyear.
c) I intend to set timelines to get projects$\square 2$ $\square 3$
$\square 4$ done.
d) I plan on studying harder in school $\square 1$$\square 3$
$\square 4$ this year than I did last year.
e) I will arrive on time to my classes.$\square 2$
$\square 3$
f) I intend to work hard on every project
$\square 1$
$\square 2$
$\square 3$to make sure everything is done right.

Thinking about yourself: How much like you are each of the statements below?
Q94
(Please check only one box in each row.)

|  | Very <br> much <br> like me | Mostly <br> like me | Somewha <br> tlike me | Not <br> much <br> like me | Not at <br> all like <br> me |
| :--- | :---: | :---: | :---: | :---: | :---: |
| a) When confronted with a |  |  |  |  |  |
| problem I give up easily. | $\square 1$ | $\square 2$ | $\square 3$ | $\square 4$ | $\square 5$ |
| b) I put little time and effort into | $\square 1$ | $\square 2$ | $\square 3$ | $\square 4$ | $\square 5$ |
| solving problems. | $\square$ | $\square 1$ | $\square 2$ | $\square 3$ | $\square 4$ |

Thinking about yourself: How much like you are each of the statements below?
Q95
(Please check only one box in each row.)
a) I am happy when I learn Very
much
like me Mostly
like me $\begin{gathered}\text { Somewhat } \\ \text { like me }\end{gathered} \begin{gathered}\text { Not } \\ \text { like me }\end{gathered}$

Not at all like
me
$\square 1$
$\square 2$
$\square 3$
$\square 4$
$\square 5$ something new.
b) I tend to analyze things.
c) I dislike learning.
d) I reason logically.
e) I can handle a lot of information.
f) I am quick to understand things.
g) I never challenge things.
h) I rarely look for a deeper meaning
$\square 1$
$\square 2$
$\square 1 \quad \square 2$
i) I seek explanations for things.
$\square 1 \quad \square 2$
$\square 3$
$\square 3$
$\square 4$
$\square 5$ in things.
j) I can easily link facts together.
k) I have difficulty imagining things.

1) I look forward to the opportunity
to learn and grow.
$\square 1$
$\square 2$
$\square 3$
$\square 4$
$\square 5$ to learn and grow.
m) I like to speculate about things.
n) I like to solve complex problems.
o) I come up with alternatives.
$\square 1$
$\square 2$

You have just bought a new cell phone. It works differently from your old one. You Q96 want to find out how to use it.

What would you do? For each suggestion, check the option that best applies to you.
(Please check only one box in each row.)
I would
definitely

do this $\quad$\begin{tabular}{c}
I would <br>
probably <br>
do this

$\quad$

I would <br>
probably do this

$\quad$

I would <br>
definitely <br>
not do this
\end{tabular}

a) I try to figure out how to use the functions that I really need. Anything else doesn't matter.
b) I look for the games first.
c) I open up every menu and try out
$\square 1$
$\square 2$ all the options.
d) I check how many buttons work$\square 2$ the same way as my old phone.
e) I read the manual.$\square 2$
$\square 3$
f) I search the Internet.
$\square 1$
$\square 2$
$\square 3$
$\square 4$
g) I ask a friend for help.$\square 2$
$\square 3$
$\square$
h) I push a few buttons to see if $\square 1$ $\square 2$ $\square 3$there are familiar menus.

Q97
Suppose that you have been sending text messages from your mobile phone for several weeks. Today, however, you can't send text messages. You want to try to solve the problem.

What would you do? For each suggestion, check the option that best applies to you.
(Please check only one box in each row.)

|  | I would <br> definitely <br> do this | I would <br> probably <br> do this | I would <br> probably <br> not do this | I would <br> definitely <br> not do this |
| :--- | :---: | :---: | :---: | :---: |
| a) I press every button possible to <br> find out what is wrong. | $\square 1$ | $\square 2$ | $\square 3$ | $\square 4$ |
| b) I think about what might have <br> happened and what I can do to <br> solve the problem. | $\square 1$ | $\square 2$ | $\square 3$ | $\square 4$ |
| c) I read the manual. | $\square 1$ | $\square 2$ | $\square 3$ | $\square 4$ |
| d) I search the Internet. | $\square 1$ | $\square 2$ | $\square 3$ | $\square 4$ |
| e) I ask a friend for help. | $\square 1$ | $\square 2$ | $\square 3$ | $\square 4$ |

After 15 minutes, you haven't found a solution to the problem. What would you do next?

What would you do? For each suggestion, check the option that best applies to you.
(Please check only one box in each row.)
a) I keep on trying hard to solve the problem by myself.

| I would <br> definitely <br> do this | I would <br> probably <br> do this | I would <br> probably <br> not do <br> this | I would <br> definitely <br> not do <br> this |
| :---: | :---: | :---: | :---: |
| $\square 1$ | $\square 2$ | $\square 3$ | $\square 4$ |
| $\square 1$ | $\square 2$ |  |  |


| b) I call the technical support line. | $\square 1$ | $\square 2$ | $\square 3$ |
| :--- | :--- | :--- | :--- |
| c) I ask my friends for help. | $\square 1$ | $\square 2$ | $\square 3$ |
| d) I search the Internet. | $\square 1$ | $\square 4$ |  |
| e) I get it repaired in a shop. | $\square 2$ | $\square 3$ | $\square 4$ |
| f) I buy another cell phone. | $\square 1$ | $\square 2$ | $\square 3$ |
| g) I read the manual. | $\square 1$ | $\square 2$ | $\square 3$ |

## Q99

## You want to buy a cable to connect your computer to your TV. You don't know which cable to buy.

What would you do? For each suggestion, check the option that best applies to you.
(Please check only one box in each row.)

|  | I would <br> definitely <br> do this | I would <br> probably <br> do this | I would <br> probably <br> not do this | I would <br> definitely <br> not do this |
| :--- | :---: | :---: | :---: | :---: |
| a) I go to the nearest electronics store |  |  |  |  |
| and ask the sales assistant. |  |  |  |  |$\quad \square 1$|  | $\square 2$ |
| :--- | :--- | computer and my TV to figure out what to buy.

Suppose you know the right cable to connect your computer to your TV. You want to find an electronics store that sells cheap cables.

What would you do? For each suggestion, check the option that best applies to you.
(Please check only one box in each row.)
a) I go to several stores and compare the advertised prices of the cables.
b) I search the Internet for the locations of discount electronics stores.
c) I go to the nearest electronics store $\square 1$
$\square 2$
$\square 3$
$\square 4$ and ask the sales assistant for a good price.
d) I ask friends for their advice on how$\square 2$
$\square 3$much I should pay.
e) I phone several electronics stores to
$\square 1$
$\square 2$
$\square 3$
$\square 4$ ask how much they charge for the cable.

You try three discount electronics stores but none of them has the cable in stock.
Q101
What would you do? For each suggestion, check the option that best applies to you.
(Please check only one box in each row.)

|  | I would definitely do this | I would probably do this | I would probably not | I would definitel not do this |
| :---: | :---: | :---: | :---: | :---: |
| a) I try to find more discount electronic stores. | $\square 1$ | $\square 2$ | $\square 3$ | $\square 4$ |
| b) I try to think of other ways I could get a cable, or if I could use a different type of connection. | $\square 1$ | $\square 2$ | $\square 3$ | $\square 4$ |
| c) I go to a very expensive store that has the cable in stock. | $\square 1$ | $\square 2$ | $\square 3$ | $\square 4$ |
| d) I decide to try again another day. | $\square 1$ | $\square 2$ | $\square 3$ | $\square 4$ |
| e) I ask friends for their advice. | $\square 1$ | $\square 2$ | $\square 3$ | $\square 4$ |
| f) I order a cable from a discount store, with an estimated two weeks delivery time. | $\square 1$ | $\square 2$ | $\square 3$ | $\square 4$ |
| g) I decide not to connect my computer and my TV. | $\square 1$ | $\square 2$ | $\square 3$ | $\square 4$ |
| h) I phone several electronics stores to ask how much they charge for the cable. | $\square 1$ | $\square 2$ | $\square 3$ | $\square 4$ |

## Q102

You are planning a trip to the zoo with your brother. You don't know which route to take to get there.

What would you do? For each suggestion, check the option that best applies to you.
(Please check only one box in each row.)

|  | I would definitely do this | I would probably do this | I would probably not do this | I would definitel not do this |
| :---: | :---: | :---: | :---: | :---: |
| a) I read the zoo brochure to see if it says how to get there. | $\square 1$ | $\square 2$ | $\square 3$ | $\square 4$ |
| b) I study a map and figure out the best route. | $\square 1$ | $\square 2$ | $\square 3$ | $\square 4$ |
| c) I leave it to my brother to worry about how to get there. | $\square 1$ | $\square 2$ | $\square 3$ | $\square 4$ |
| d) I ask a friend who has been there before for advice. | $\square 1$ | $\square 2$ | $\square 3$ | $\square 4$ |
| e) I know roughly where it is, so I suggest we just start driving. | $\square 1$ | $\square 2$ | $\square 3$ | $\square 4$ |
| f) I search the Internet to get directions from home to the zoo. | $\square 1$ | $\square 2$ | $\square 3$ | $\square 4$ |
| g) I use a GPS car navigation system to find the quickest route. | $\square 1$ | $\square 2$ | $\square 3$ | $\square 4$ |

Suppose that your brother is driving and you are using a map to navigate to the zoo. When you think you are nearly there, you realize that you are lost.

What would you do? For each suggestion, check the option that best applies to you.
(Please check only one box in each row.)

|  | I would <br> definitely <br> do this | I would <br> probably <br> do this | I would <br> probably <br> not do this | I would <br> definitely <br> not do <br> this |
| :--- | :---: | :---: | :---: | :---: |
| a) I ask my brother for help. | $\square 1$ | $\square 2$ | $\square 3$ | $\square 4$ |
| b) I think about where we might <br> have made a wrong turn and how <br> to get back on course. | $\square 1$ | $\square 2$ | $\square 3$ | $\square 4$ |
| c) I study the map to try to figure <br> out where we are. | $\square 1$ | $\square 2$ | $\square 3$ | $\square 4$ |
| d) I tell my brother to turn around <br> and drive back until we find a <br> road I know. | $\square 1$ | $\square 2$ | $\square 3$ | $\square 4$ |
| e)The zoo should be close by, so I <br> suggest that we keep going to see <br> if we can find it. <br> f) We stop and ask a pedestrian for <br> help. | $\square 1$ | $\square 1$ | $\square 2$ | $\square 3$ |

After 15 minutes, you have worked out where you are. You are a long way from
Q104 the zoo and there doesn't seem to be an easy way to get there.

What would you do? For each suggestion, check the option that best applies to you.
(Please check only one box in each row.)

$$
\begin{array}{cccc}
\text { I would } & \text { I would } & \text { I would } & \text { I would } \\
\text { definitely } \\
\text { do this } & \text { probably } \\
\text { do this } & \text { probably } & \text { not do this } & \begin{array}{c}
\text { definitely } \\
\text { not do } \\
\text { this }
\end{array}
\end{array}
$$

a) I call my friend who has been there before to ask for help.
b) I keep on trying hard to figure out the best way to get there.
c) I ask my brother what to do.
$\square 1$
$\square 2$
$\square 3$
$\square 4$
$\square 1$
$\square 2$
$\square 3$
$\square 4$
d) I suggest we find a gas station.$\square 2$
$\square 3$
$\square 4$
e) I give up and ask my brother to$\square 2$
$\square 3$ $\square 4$ drive us back home.
f) I look for another place we can visit that is easy to get to from $\square 1$
$\square 2$
$\square 3$
$\square 4$ where we are now.

You arrive at the train station. There is a ticket machine that you have never
Q105 used before. You want to buy a ticket.

What would you do? For each suggestion, check the option that best applies to you.
(Please check only one box in each row.)

| I would <br> definitely <br> do this | I would <br> probably <br> do this | I would <br> probably <br> not do this | I would <br> definitely <br> not do <br> this |
| :---: | :---: | :---: | :---: |

a) I check how similar it is to other ticket machines I have used.
b) I watch how somebody else buys a ticket.
c) I carefully read the instructions on the machine.
d) I try out all the buttons to see what happens.
e) I ask someone for help.
$\square 1$
$\square 2$
$\square 3$
$\square 4$
$\square 4$
f) I try to find a ticket office at the $\square 1$ station to buy a ticket.
$\square 1$
$\square 2$
$\square 3$
$\square 4$
$\square 1$
$\square 2$
$\square 3$
$\square 4$

- 

$\square 1$
$\square 2$
$\square 3$
$\square 4$
1
$\square 2$
$\square 3$
$\square 4$

Suppose that you have been buying train tickets from the ticket machine for several weeks. Today, however, the ticket machine doesn't seem to work. You need to buy a ticket.

What would you do? For each suggestion, check the option that best applies to you.
(Please check only one box in each row.)
I would
definitely

do this $\quad$\begin{tabular}{c}
I would <br>
probably <br>
do this

$\quad$

I would <br>

pobably | not this |
| :---: |

 

I would <br>
definitely <br>
not do <br>
not
\end{tabular}

a) I press every button possible to find out what is wrong.
b) I think about what might cause this problem and what I can do to solve it.
c) I carefully read the display and the instructions on the machine.
d) I try to find another ticket machine.
$\square 1$
$\square 2$
$\square 3$
e) I try to find a ticket office at the station to buy a ticket.
f) I ask someone for help.$\square 2$
$\square 3$
$\square 4$
g) I phone the customer service line.
$\square 1$
$\square 2$
$\square 3$

h) I hit the machine to try to get it to
$\square 1$
$\square 2$
$\square 3$ $\qquad$ work.

## Q107 After 15 minutes, you haven't been able to buy a ticket and the train is due to

 arrive soon.What would you do? For each suggestion, check the option that best applies to you.
(Please check only one box in each row.)
I would
definitely

do this \begin{tabular}{c}
I would <br>
probably <br>
do this

 

I would <br>
probably <br>
not do <br>
\end{tabular}

| a) I try to find a ticket office at the | $\square 1$ | $\square 2$ | $\square 3$ |
| :--- | :--- | :--- | :--- |
| station to buy a ticket. |  |  |  |$\quad \square 4$

The questions that follow have to do with how you make decisions. You are given two to three choices. Your task is to decide between the choices. Choose the box that matches your preference.

## You are given two choices to make money: Which do you prefer?

Q108
(Please check only one box.)
Accept $\$ 200$

Flip a coin. If it comes up heads you get $\$ 500$, if it comes up tails you get nothing.

You are given two choices to make money: Which do you prefer?
Q109
(Please check only one box.)
Accept $\$ 200$

Flip a coin. If it comes up heads
you get $\$ 400$, if it comes up tails
you get nothing.

Q110 You are given two choices to make money: Which do you prefer?
(Please check only one box.)
Accept $\$ 200$

Flip a coin. If it comes up heads you get $\$ 350$, if it comes up tails $\square_{2}$ you get nothing.

You are given two choices to make money: Which do you prefer?

Q111
(Please check only one box.)
Accept $\$ 200$

Flip a coin. If it comes up heads you get $\$ 450$, if it comes up tails you
get nothing.

You are given three choices to make money: Which do you prefer?
Q112
(Please check only one box.)
To get $\$ 200$ now

To get $\$ 250$ in 3 months

To get $\$ 300$ in 6 months

You are given three choices to make money: Which do you prefer?
(Please check only one box.)
To get $\$ 200$ now

To get $\$ 250$ in 1 month

To get $\$ 300$ in 3 months

You are given three choices to make money: Which do you prefer?
(Please check only one box.)
To get $\$ 200$ now

To get $\$ 300$ in 1 month

To get $\$ 600$ in 3 months

You are given three choices to make money: Which do you prefer?
Q115
(Please check only one box.)
To get $\$ 200$ now
To get $\$ 300$ in 3 months $\square_{2}$

To get $\$ 600$ in 6 months

## 4. Items in 2003 Student Questionnaire that have been eliminated:

| Item \# | Stem |
| :--- | :--- |
| Q43 | What kind of job do you expect to have when you are about 30 years <br> old? |
| Q44 | Is there a computer available for you to use at any of these places? |
| Q45 | Have you ever used a computer? |
| Q46 | How long have you been using computers? |
| Q47 | How often do you use a computer at these places? |
| Q48 | How often do you use: |
| Q49 | How well can you do each of these tasks on a computer? |
| Q50 | Thinking about your experience with computers: To what extent do you <br> agree with the following statements? |

