



QUESTION 5

Check the highest level of education completed by your father, e.g., if your father left secondary school early but later completed a trade certificate at a Polytechnical College you would check E.

- A Left school before the end of primary school [ ]
- B Left school after finishing primary school [ ]
- C Left before finishing secondary school [ ]
- D Left after finishing secondary school [ ]
- \*E Completed a trade certificate for a specialized occupation [ ]
- \*F Attended college, university or some form of tertiary education [ ]
- \*G Finished a college, university or tertiary education course [ ]

QUESTION 6

Check the highest level of education completed by your mother.

- A Left school before the end of primary school [ ]
- B Left school after finishing primary school [ ]
- C Left before finishing secondary school [ ]
- D Left after finishing secondary school [ ]
- \*E Completed a trade certificate for a specialized occupation [ ]
- \*F Attended college, university or some form of tertiary education [ ]
- \*G Finished a college, university or tertiary education course [ ]

QUESTION 7

Do your parents speak (National Center to insert language of instruction in school) at home?

- A They do not speak (\_\_\_\_\_) at home [ ]
- B Sometimes speak (\_\_\_\_\_) at home [ ]
- C Usually speak (\_\_\_\_\_) at home [ ]
- D Speak only (\_\_\_\_\_) at home [ ]

QUESTION 8

After this year, how many more years of full-time (include university, college, etc.) education do you expect or plan to complete?

- A None at all ( 0 years ) [ ]
- B Up to 2 years [ ]
- C More than 2 years - up to 5 years [ ]
- D More than 5 years - up to 8 years [ ]
- E More than 8 years [ ]

QUESTION 9

About how many hours of homework in mathematics, outside of formal class time, have you been doing each week?

Give a response for what you actually did last week as well as a response for what you think you do in a typical week.

Hours last week \_\_\_\_\_ Hours in a typical week \_\_\_\_\_

QUESTION 10

About how many hours of homework for all subjects, outside of formal class time, do you usually do each week?

Hours last week \_\_\_\_\_ Hours in a typical week \_\_\_\_\_

QUESTION 11

How much extra mathematics tutoring or instruction do you receive outside of your school in a typical week? (Give your answer to the nearest hour)

(National Centers should translate 'school' to mean the normal day time classes as would be reflected by the school's responses to questions 8-10 in the School Questionnaire)

Hours last week \_\_\_\_\_ Hours in a typical week \_\_\_\_\_

QUESTION 12

So far this year how frequently have your parents helped you with your mathematics? (Check one)

Never or very infrequently	[ ]
Occasionally	[ ]
Regularly	[ ]

QUESTION 13

Do you use one or more of the following?  
 (Check all that apply)

		Within Home	In Mathematics Classes	In other Classes	
A	abacus (soroban)	-	-	-	-
B	slide rule	-	-	-	-
C	four-function calculator	-	-	-	-
D	'scientific' (i.e., pre-programmed multifunction) calculator	-	-	-	-
E	'programmable' calculator	-	-	-	-
F	personal computer or terminal	-	-	-	-

QUESTION 14

(a) Do you use these devices in school?  
 Please fill in each cell with  
 N for No  
 Y for Yes

		Four function-Calculator	Scientific or Programmable Calculator	Computer	
A	checking answers to exercises	-	-	-	-
B	as an aid in solving problems	-	-	-	-
C	for taking tests	-	-	-	-
D	as an aid in doing projects	-	-	-	-
E	for recreation	-	-	-	-
F	(b) At home to do homework	-	-	-	-

QUESTION 15

Below are some statements about you, your mother or father (or both) and mathematics. You are asked to mark each statement in terms of how well it describes what your parent does or thinks about mathematics. Is it like what they do or think? Is it not like what they do or think?

For example, consider the statement:

"My father thinks that mathematics is fun."

If this describes what your father thinks about mathematics mark the response as shown below

```
-----  
- Exactly -   Somewhat   Unsure   Not very   Not at  
- like   -   like       much like all like  
-----
```

Make only one response to each item.  
Please ensure that you answer all items.

(a) My father seems to like doing mathematics.

```
Exactly   Somewhat   Unsure   Not very   Not at  
like     like       much like all like
```

(b) My mother seems to like doing mathematics.

```
Exactly   Somewhat   Unsure   Not very   Not at  
like     like       much like all like
```

(c) My father would usually be able to do my mathematics homework problems if I asked him to help.

```
Exactly   Somewhat   Unsure   Not very   Not at  
like     like       much like all like
```

(d) My mother would usually be able to do my mathematics homework problems if I asked her to help.

```
Exactly   Somewhat   Unsure   Not very   Not at  
like     like       much like all like
```

(e) My parents are not usually very interested in helping me with mathematics.

```
Exactly   Somewhat   Unsure   Not very   Not at  
like     like       much like all like
```

(f) My mother thinks that learning mathematics is very important for me.

```
Exactly   Somewhat   Unsure   Not very   Not at  
like     like       much like all like
```

(g) My father thinks that learning mathematics is very important for me.

```
Exactly   Somewhat   Unsure   Not very   Not at  
like     like       much like all like
```

(h) My parents encourage me to learn as much mathematics as possible.

Exactly like	Somewhat like	Unsure	Not very much like	Not at all like
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(i) My parents want me to do very well in mathematics class.

Exactly like	Somewhat like	Unsure	Not very much like	Not at all like
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QUESTION 16

Checking an answer to a problem by going back over it.

a	very important important	important	undecided	not important	not at all important
b	very easy	easy	undecided	hard	very hard
c	like a lot	like	undecided	dislike	dislike a lot

QUESTION 17

Memorizing rules and formulae.

a	very important important	important	undecided	not important	not at all important
b	very easy	easy	undecided	hard	very hard
c	like a lot	like	undecided	dislike	dislike a lot

QUESTION 18

Solving word problems.

a	very important important	important	undecided	not important	not at all important
b	very easy	easy	undecided	hard	very hard
c	like a lot	like	undecided	dislike	dislike a lot

QUESTION 19

Getting information from statistical tables.

a	very important important	important	undecided	not important	not at all important
b	very easy	easy	undecided	hard	very hard
c	like a lot	like	undecided	dislike	dislike a lot

QUESTION 20

Solving equations.

a	very important important	important	undecided	not important	not at all important
b	very easy	easy	undecided	hard	very hard
c	like a lot	like	undecided	dislike	dislike a lot

QUESTION 21

Proving theorems.

a	very important important	important	undecided	not important	not at all important
b	very easy	easy	undecided	hard	very hard
c	like a lot	like	undecided	dislike	dislike a lot

QUESTION 22

Using vectors.

a	very important important	important	undecided	not important	not at all important
b	very easy	easy	undecided	hard	very hard
c	like a lot	like	undecided	dislike	dislike a lot

QUESTION 23

Working with complex numbers.

a	very important important	important	undecided	not important	not at all important
b	very easy	easy	undecided	hard	very hard
c	like a lot	like	undecided	dislike	dislike a lot

QUESTION 24

Investigating sequences and series.

a	very important important	important	undecided	not important	not at all important
b	very easy	easy	undecided	hard	very hard
c	like a lot	like	undecided	dislike	dislike a lot

QUESTION 25

Differentiating functions.

a	very important important	important	undecided	not important	not at all important
b	very easy	easy	undecided	hard	very hard
c	like a lot	like	undecided	dislike	dislike a lot

QUESTION 26

Drawing graphs of functions.

a	very important important	important	undecided	not important	not at all important
b	very easy	easy	undecided	hard	very hard
c	like a lot	like	undecided	dislike	dislike a lot

QUESTION 27

Finding a limit of a function.

a	very important important	important	undecided	not important	not at all important
b	very easy	easy	undecided	hard	very hard
c	like a lot	like	undecided	dislike	dislike a lot

QUESTION 28

Solving systems of linear equations.

a	very important important	important	undecided	not important	not at all important
b	very easy	easy	undecided	hard	very hard
c	like a lot	like	undecided	dislike	dislike a lot



QUESTION 29

Determining the probability of an outcome.

- |   |                             |           |           |                  |                         |
|---|-----------------------------|-----------|-----------|------------------|-------------------------|
| a | very important<br>important | important | undecided | not<br>important | not at all<br>important |
| b | very easy                   | easy      | undecided | hard             | very hard               |
| c | like a lot                  | like      | undecided | dislike          | dislike a lot           |

QUESTION 30

Using a hand-held calculator.

- |   |                             |           |           |                  |                         |
|---|-----------------------------|-----------|-----------|------------------|-------------------------|
| a | very important<br>important | important | undecided | not<br>important | not at all<br>important |
| b | very easy                   | easy      | undecided | hard             | very hard               |
| c | like a lot                  | like      | undecided | dislike          | dislike a lot           |

QUESTION 31

Mathematics will change rapidly in the near future.

- |                      |          |           |       |                   |
|----------------------|----------|-----------|-------|-------------------|
| Strongly<br>Disagree | Disagree | Undecided | Agree | Strongly<br>Agree |
|----------------------|----------|-----------|-------|-------------------|

QUESTION 32

Mathematics is a good field for creative people.

- |                      |          |           |       |                   |
|----------------------|----------|-----------|-------|-------------------|
| Strongly<br>Disagree | Disagree | Undecided | Agree | Strongly<br>Agree |
|----------------------|----------|-----------|-------|-------------------|

QUESTION 33

There is little place for originality in solving mathematics problems.

- |                      |          |           |       |                   |
|----------------------|----------|-----------|-------|-------------------|
| Strongly<br>Disagree | Disagree | Undecided | Agree | Strongly<br>Agree |
|----------------------|----------|-----------|-------|-------------------|

QUESTION 34

New discoveries in mathematics are constantly being made.

- |                      |          |           |       |                   |
|----------------------|----------|-----------|-------|-------------------|
| Strongly<br>Disagree | Disagree | Undecided | Agree | Strongly<br>Agree |
|----------------------|----------|-----------|-------|-------------------|

QUESTION 35

Mathematics helps one to think according to strict rules.

- |                      |          |           |       |                   |
|----------------------|----------|-----------|-------|-------------------|
| Strongly<br>Disagree | Disagree | Undecided | Agree | Strongly<br>Agree |
|----------------------|----------|-----------|-------|-------------------|

QUESTION 36

Estimating is an important mathematics skill.

Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
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QUESTION 37

There are many different ways to solve most mathematics problems.

Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
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QUESTION 38

Learning mathematics involves mostly memorizing.

Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
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QUESTION 39

In mathematics, problems can be solved without using rules.

Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
----------------------	----------	-----------	-------	-------------------

QUESTION 40

Trial and error can often be used to solve a mathematics problem.

Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
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QUESTION 41

There is always a rule to follow in solving a mathematics problem.

Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
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QUESTION 42

There have probably not been any new discoveries in mathematics for a long time.

Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
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QUESTION 43

Mathematics is a set of rules.

Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
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QUESTION 44

A mathematics problem can always be solved in different ways.

Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
----------------------	----------	-----------	-------	-------------------

QUESTION 45

Mathematics helps one to think logically.

Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
----------------------	----------	-----------	-------	-------------------

QUESTION 46

I really want to do well in mathematics.

Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
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QUESTION 47

My parents really want me to do well in mathematics.

Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
----------------------	----------	-----------	-------	-------------------

QUESTION 48

I am looking forward to taking more mathematics.

Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
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QUESTION 49

I feel good when I solve a mathematics problem by myself.

Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
----------------------	----------	-----------	-------	-------------------

QUESTION 50

I usually understand what we are talking about in mathematics class.

Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
----------------------	----------	-----------	-------	-------------------

QUESTION 51

I am not so good at mathematics.

Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
----------------------	----------	-----------	-------	-------------------

QUESTION 52

I like to help others with mathematics problems.

Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
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QUESTION 53

If I had my choice I would not learn any more mathematics.

Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
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QUESTION 54

I feel challenged when I am given a difficult mathematics problem.

Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
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QUESTION 55

I refuse to spend a lot of my own time doing mathematics.

Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
----------------------	----------	-----------	-------	-------------------

QUESTION 56

Mathematics is harder for me than for most persons.

Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
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QUESTION 57

I could never be a good mathematician.

Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
----------------------	----------	-----------	-------	-------------------

QUESTION 58

No matter how hard I try I still do not do well in mathematics.

Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
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QUESTION 59

I will work a long time in order to understand a new idea in mathematics.

Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
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QUESTION 60

Working with numbers makes me happy.

Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
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QUESTION 61

It scares me to have to take mathematics.

Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
----------------------	----------	-----------	-------	-------------------

QUESTION 62

I usually feel calm when doing mathematics problems.

Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
----------------------	----------	-----------	-------	-------------------

QUESTION 63

I think mathematics is fun.

Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
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QUESTION 64

When I cannot figure out a problem, I feel as though I am lost in a maze of words and cannot find my way out.

Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
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QUESTION 65

Men make better scientists and engineers than women.

Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
----------------------	----------	-----------	-------	-------------------

QUESTION 66

Boys have more natural ability in mathematics than girls.

Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
----------------------	----------	-----------	-------	-------------------

QUESTION 67

Boys need to know more mathematics than girls.

Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
----------------------	----------	-----------	-------	-------------------

QUESTION 68

A woman needs a career just as much as a man does.

Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
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QUESTION 69

It is important to know mathematics such as algebra or geometry in order to get a good job.

Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
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QUESTION 70

Most people do not use mathematics such as algebra or geometry in their job.

Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
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QUESTION 71

I would like to work at a job that lets me use mathematics.

Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
----------------------	----------	-----------	-------	-------------------

QUESTION 72

Mathematics is useful in solving everyday problems.

Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
----------------------	----------	-----------	-------	-------------------

QUESTION 73

I can get along well in everyday life without using mathematics.

Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
----------------------	----------	-----------	-------	-------------------

QUESTION 74

Most of mathematics has practical use on the job.

Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
----------------------	----------	-----------	-------	-------------------

QUESTION 75

Mathematics is not needed in everyday living.

Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
----------------------	----------	-----------	-------	-------------------

QUESTION 76

A knowledge of mathematics is not necessary in most occupations.

Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
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QUESTION 77

Computers can think.

Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
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QUESTION 78

Someday computers will run everything.

Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
----------------------	----------	-----------	-------	-------------------

QUESTION 79

Computers make learning mathematics more enjoyable.

Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
----------------------	----------	-----------	-------	-------------------

QUESTION 80

Everyone should learn about computers.

Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
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QUESTION 81

Using a hand calculator makes it more fun to solve problems in mathematics.

Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
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QUESTION 82

Mathematical ideas can be learned faster if you use a hand calculator.

Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
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QUESTION 83

If you use a hand calculator you do not have to learn how to compute.

Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
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QUESTION 84

Using a hand calculator can help you learn many different mathematical topics.

Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
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