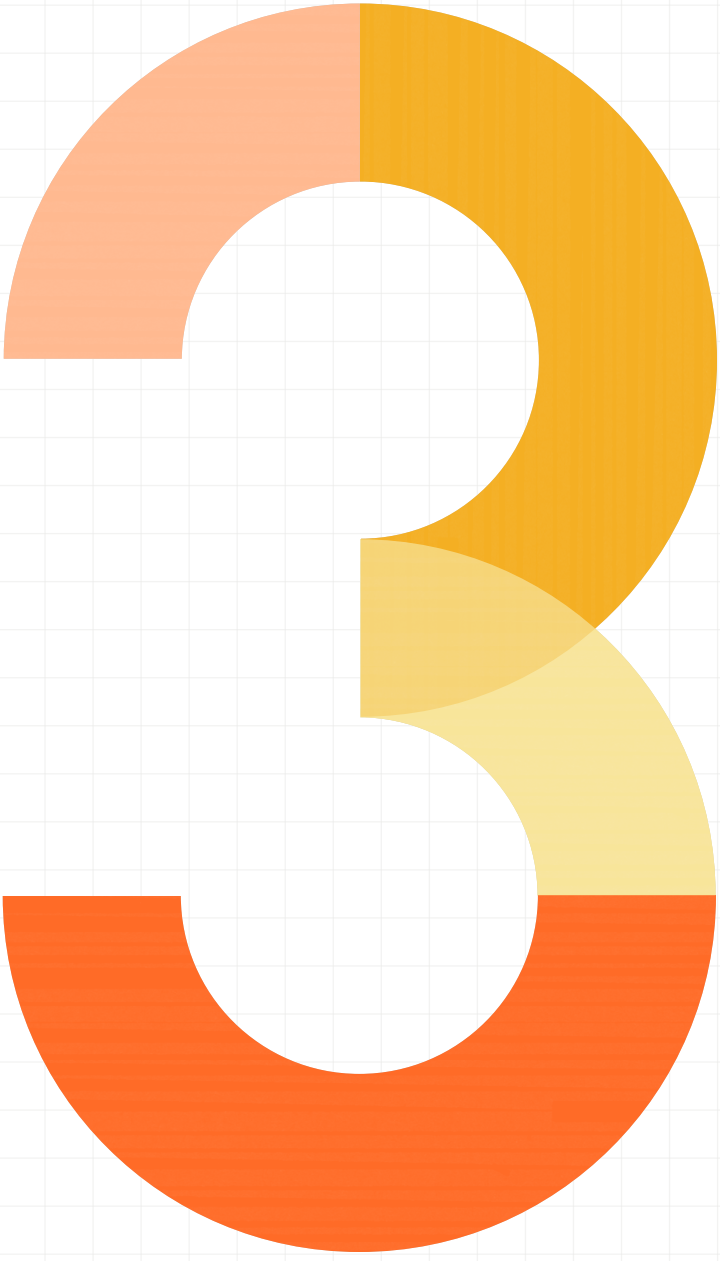
Released Questions with Provincial Data

Mathematics



In This Resource:

- Details of the Assessment
- Results Reported
- Definitions of the Categories of Knowledge and Skills
- Suggested Uses for This Resource
- Questions
- Questions with Answers and Provincial Data

This resource is provided to support educators with the mathematics component of the EQAO Assessment of Reading, Writing and Mathematics, Primary Division. Each mathematics question on the assessment is mapped to a category of knowledge and skills and an overall and a specific expectation in *The Ontario Curriculum, Grades 1–8: Mathematics* (2020). This resource includes the definitions of the categories of knowledge and skills as well as examples of assessment questions. Detailed information about each question, including the overall expectation and category of knowledge and skills to which the question is mapped, the correct answer and provincial data, are provided. For more information about the assessment design, refer to the *Framework* at www.eqao.com.

DETAILS OF THE ASSESSMENT

The EQAO Assessment of Reading, Writing and Mathematics, Primary Division, is an online assessment completed by students at the end of Grade 3. The mathematics component of the assessment uses a multi-stage computer adaptive testing model that adapts to the individual student's performance as the student progresses through the stages of the assessment (e.g., based on a student's performance in Stage 1, the student will be routed to a set of questions that is overall easier or more difficult in Stage 2). Though students are routed to different question sets, outcomes are put on the same scale, and overall levels of achievement are comparable.

The mathematics component assesses the knowledge and skills that are defined in the expectations found in *The Ontario Curriculum, Grades 1–8: Mathematics* (2020). The questions assess students' knowledge and skills in these strands:

- Number
- Algebra
- Data
- Spatial Sense
- Financial Literacy

Although the assessment does not measure the content in the Social-Emotional Learning (SEL) Skills in Mathematics and the Mathematical Processes strand, students may be required to apply mathematical processes while completing the assessment.

Each question on the assessment is mapped to an overall and a specific curriculum expectation. Each question is also mapped to one of these categories of knowledge and skills:

- Knowledge and Understanding (**KU**)
- Application (**AP**)
- Thinking (**TH**)

Questions in the mathematics component do not assess the Communication category of knowledge and skills.

During each stage of the assessment, students complete questions mapped to each of the three categories of knowledge and skills assessed. The category assigned to each question assumes that students have been taught the knowledge and skills outlined in the Grade 3 mathematics curriculum, as the EQAO assessment is completed near the end of Grade 3.

Regardless of how students are routed as they progress through the stages of the assessment, students complete the same number of questions from each of the various strands assessed, as the assessment follows a blueprint. The blueprint, which can be found in the *Framework,* defines how many questions a student will complete from each strand. This makes the assessment comparable from year to year. (For more information, see www.eqao.com.)

RESULTS REPORTED

The EQAO Assessment of Reading, Writing and Mathematics, Primary Division, is a standards-referenced large-scale assessment based on the expectations and standards (levels of achievement) for student proficiency in *The Ontario Curriculum.* EQAO reports an overall level of achievement in mathematics for each student. EQAO does not provide results by strand or by category of knowledge and skills at the student level, as each student does not complete enough questions mapped to each strand or skill to report on each accurately. However, through the EQAO secure reporting tool, the agency provides reports by strand and skill at the school, board and provincial levels for schools and boards to use for improvement planning.

DEFINITIONS OF THE CATEGORIES OF KNOWLEDGE AND SKILLS

EQAO has adapted the definitions of the three categories below from the achievement chart for mathematics found in the Ontario mathematics curriculum. This section outlines the definitions EQAO uses to determine the category for each question on the assessment.

For previous examples of questions mapped to the categories of knowledge and skills, please refer to the 2023 edition of this resource.

Knowledge and Understanding

A question is mapped to Knowledge and Understanding if in order to answer the question students must demonstrate only

- subject-specific content (knowledge) and/or
- comprehension of its meaning and significance (understanding).

These questions assess basic knowledge and/or understanding of concepts.

Application

A question is mapped to Application if in order to answer the question students must either

- select the appropriate tool or
- get the necessary information and "fit" it to the problem.

The category that a question is mapped to may change from Knowledge and Understanding to Application if a context is added or if a tool required to answer the question is not provided.

Thinking

A question is mapped to Thinking if in order to answer the question students must either

- select and sequence a variety of tools or
- demonstrate a critical thinking process (e.g., reasoning).

Students may need to make a plan to answer these questions.

SUGGESTED USES FOR THIS RESOURCE

Here is a suggested list of how the example questions can be used in the classroom:

Use questions without including the answer options. Students can answer the question and then discuss the steps required and other possible answers, including those arrived at through common errors or misconceptions. Discuss whether there are multiple methods that can be used to answer the question. Students can then compare their answer to the given options.

Use technology in the classroom to have students record answers instantly, which will allow for discussion of correct answers and the common errors or misconceptions associated with the incorrect options. The discussion can lead to a deeper understanding of concepts and assist students in correcting their own misconceptions.

Use questions as part of a pre- and post-assessment on a topic to show students their improved understanding within a unit.

Use questions when spiralling as a method to revisit topics.

Encourage students to use manipulatives, and model how to use them effectively. For example, fraction strips or towers can be used with questions mapped to expectations in the Number or Data strand.

Analyze the provincial data for each question and consider how students at each level responded. Consider how the provincial data relates to how your students responded to the question. Review each answer option and how different responses can demonstrate potential strengths and areas for improvement.

QUESTIONS

These released questions are from the mathematics component of the primary-division assessment. This section provides the overall expectation and the category of knowledge and skills for each question.

B. NUMBER

B1. Number Sense

demonstrate an understanding of numbers and make connections to the way numbers are used in everyday life

1 KU

Mr. Chan has 57 pencils in his classroom.

What is 57 rounded to the nearest 10?

A 50

B 55

C 60

D 70

2 AP

Which of these sets shows skip counting by 25s?

A 300, 325, 335, 345

B 325, 330, 335, 340

C 300, 325, 375, 400

D 325, 350, 375, 400

B2. Operations

use knowledge of numbers and operations to solve mathematical problems encountered in everyday life

3 How many groups of 5 are in 35?

KU

A 30 groups

B 8 groups

C 7 groups

D 6 groups

4 There are 42 people playing soccer. After some time, 14 people leave.

AP

How many people are still playing soccer?

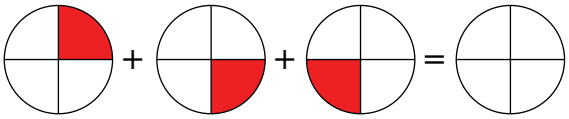
A 56 people

B 38 people

C 32 people

D 28 people

5 AP Which fraction represents the area of the circle that should be red in the answer?



A $\frac{1}{4}$

B $\frac{1}{3}$

C $\frac{3}{3}$

D $\frac{3}{4}$

6 TH There are 3 bicycles and 4 tricycles.

bicycle

tricycle

How many tires are there in total?

A 7 tires

B 12 tires

C 14 tires

D 18 tires

C. ALGEBRA

C1. Patterns and Relationships

identify, describe, extend, create, and make predictions about a variety of patterns, including those found in real-life contexts

7 AP Kelly swims on the days that are circled on this calendar.

S	M	T	W	T	F	S
	1	2	3	4	5	6
7	8	9	10	(11)	12	13
(14)	15	16	(17)	18	19	(20)
21	22	(23)	24	25	(26)	27
28	(29)	30	31			

How often does Kelly swim?

A Kelly swims every 2 days.

B Kelly swims every 3 days.

C Kelly swims every 4 days.

D Kelly swims every 6 days.

8 TH Tal creates a pattern. He starts at 7 and counts forward by 2s.

Vijay creates a pattern. He starts at 6 and counts forward by 5s.

Which of the following two numbers are in Tal's and Vijay's patterns?

A 11 and 16

B 11 and 21

C 21 and 25

D 21 and 26

C2. Equations and Inequalities

demonstrate an understanding of variables, expressions, equalities, and inequalities, and apply this understanding in various contexts

9 Which expression is equal to 400?
KU

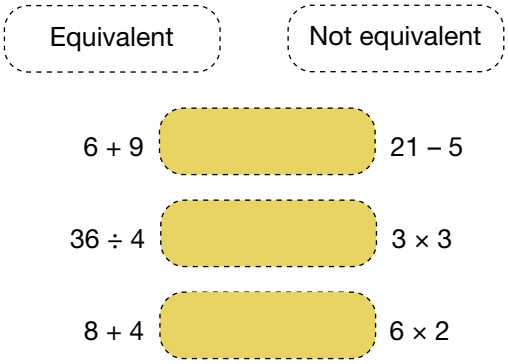
A 600 – 300

B 300 + 100

C 200 + 300

D 500 – 200

10 Drag and drop "Equivalent" or "Not equivalent" into each box to show the relationship between each set of expressions.
TH



C3. Coding

solve problems and create computational representations of mathematical situations using coding concepts and skills

11 KU Which line of code would create a loop in a program?

A wait 5 seconds

B input **number**

C repeat 3 times

D move forward 1 space

C4. Mathematical Modelling

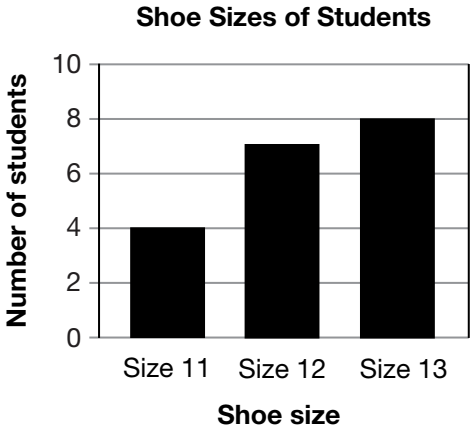
Currently there are no EQAO questions mapped to this overall expectation. There are no specific expectations for this overall expectation.

D. DATA

D1. Data Literacy

manage, analyse, and use data to make convincing arguments and informed decisions, in various contexts drawn from real life

12 KU This graph shows the shoe sizes of students.



How many students wear size 12 shoes?

A 4 students

B 6 students

C 7 students

D 8 students

13 AP A total of 21 students are asked about their favourite activity. The results are shown in this pictograph, but information for the key is missing.

Favourite Activity of Students

Reading	☺ ☺ ☺ ☺
Video Games	☺ ☺ ☺
Painting	☺ ◔
Hiking	☺ ☺

Key
Each ☺ represents _____ students.

What is the correct key for this pictograph?

A Each ☺ represents 1 student.

B Each ☺ represents 2 students.

C Each ☺ represents 3 students.

D Each ☺ represents 4 students.

D2. Probability

describe the likelihood that events will happen, and use that information to make predictions

14 Alma chooses a tile from a bag without looking.

AP

Which bag does she use if the chances of choosing a tile with an even number and choosing a tile with an odd number are equally likely?

A

B

C

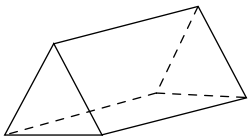
D

E. SPATIAL SENSE

E1. Geometric and Spatial Reasoning

describe and represent shape, location, and movement by applying geometric properties and spatial relationships in order to navigate the world around them

15 Which option lists **all** the faces of this object?
KU



A 2 triangles, 2 rectangles

B 2 triangles, 3 rectangles

C 3 triangles, 2 rectangles

D 3 triangles, 3 rectangles

16 Choose the **TWO** objects that each have
AP 6 faces, 12 edges and 8 vertices.

A 

B 

C 

D 

E 

17 TH Which object has a total of 8 vertices and a rectangular base?

A a square-based pyramid

B an octagon-based pyramid

C a rectangle-based prism

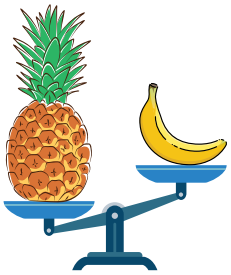
D an octagon-based prism

E2. Measurement

compare, estimate, and determine measurements in various contexts

18 This scale is not balanced.

KU



Which statement is true?

A. The pineapple's mass is equal to the banana's mass.

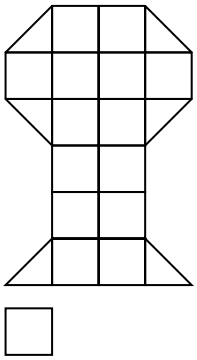
B. The pineapple's mass is less than the banana's mass.

C. The banana's mass is greater than the pineapple's mass.

D. The banana's mass is less than the pineapple's mass.

19 What is the area of this shape?

AP



1 cm^2

A. 14 cm^2

B. 16 cm^2

C. 17 cm^2

D. 20 cm^2

F. FINANCIAL LITERACY

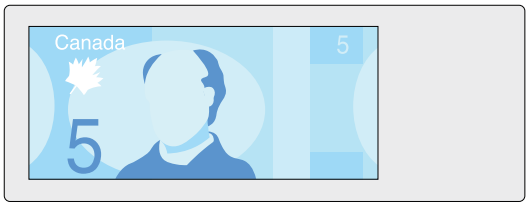
F1. Money and Finances

demonstrate an understanding of the value and use of Canadian currency

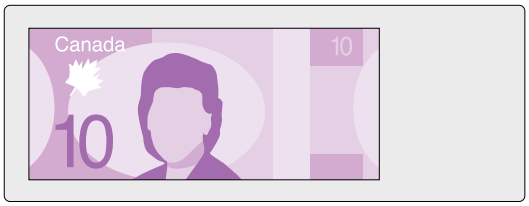
20 **KU** A student buys a book that costs $14. He pays with a $20 bill.

Choose the bill that is the best estimate of the change he should receive.

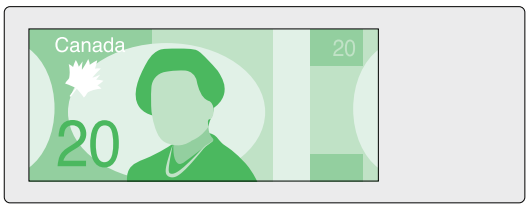
A



B



C



21 **AP** An item costs 75¢, and the cash given is 80¢.

What is the change?

A 5¢

B 10¢

C 15¢

D 25¢

QUESTIONS WITH ANSWERS AND PROVINCIAL DATA

Sample Data with Observations

In this section, each question is presented with the correct response and its data in a table. This data shows the percentage of students who selected each answer choice by level. The observations that follow each table are provided for consideration as the data in the table is analyzed.

	No Response	A	B	C	D
Below Level 1	4	22	26	26	22
Level 1	1	13	37	29	20
Level 2	0	10	55	22	12
Level 3	0	5	75	14	7
Level 4	0	1	92	4	2

LEGEND			
0-24	25-49	50-79	80-100

The correct answer, option B, was selected by

- 26% of all students who received Below Level 1,
- 37% of all students who received Level 1;
- 55% of all students who received Level 2;
- 75% of all students who received Level 3 and
- 92% of all students who received Level 4.

Among all the students who received a Level 3 on the assessment,

- 75% selected the correct answer, option B;
- 5% selected option A;
- 14% selected option C and
- 7% selected option D.

One of the incorrect answers, option C, was selected by 29% of students who received a Level 1 and 22% of students who received Level 2.

Reminders:

- The percentages in a row for a particular question and a particular level are not provided when the row's sample size is fewer than 49 students. In these cases, ND (not enough data) is shown.
- The percentages in each row may not add up to 100%, due to rounding.
- The legend provided applies to each table with the data.
- For some of the questions in this resource, the data provided shows the percentage of students whose responses were fully correct, partially correct or incorrect at each achievement level.

Using the Data

There are many things to consider when reviewing the data. It is not possible to know why the students selected the response they did. In a single-selection question with four options, if the percentages in one row (at a specific level) are approximately 25% each, this may demonstrate that many of the students who received the particular level guessed.

B. NUMBER

B1. Number Sense

demonstrate an understanding of numbers and make connections to the way numbers are used in everyday life

1 Mr. Chan has 57 pencils in his classroom.

KU

What is 57 rounded to the nearest 10?

A 50

B 55

C 60

D 70

English-Language Schools

	No Response	A	B	C	D
Below Level 1	3	32	23	11	31
Level 1	0	29	28	20	22
Level 2	0	19	18	55	8
Level 3	0	7	8	82	2
Level 4	ND	ND	ND	ND	ND

Among students who received this question, 82% who achieved a Level 3 on the assessment, 55% who achieved a Level 2 and 20% who achieved a Level 1 selected the correct response.

French-Language Schools

	No Response	A	B	C	D
Below Level 1	ND	ND	ND	ND	ND
Level 1	0	19	39	19	24
Level 2	0	19	31	39	11
Level 3	0	9	17	71	3
Level 4	ND	ND	ND	ND	ND

Among students who received this question, 71% who achieved a Level 3 on the assessment, 39% who achieved a Level 2 and 19% who achieved a Level 1 selected the correct response.

B1. Number Sense (continued)

2 Which of these sets shows skip counting by 25s?
AP

A 300, 325, 335, 345

B 325, 330, 335, 340

C 300, 325, 375, 400

D **325, 350, 375, 400**

English-Language Schools

	No Response	A	B	C	D
Below Level 1	1	47	23	15	14
Level 1	0	42	21	15	22
Level 2	0	25	13	14	48
Level 3	0	5	3	8	85
Level 4	0	0	0	2	97

Among students who received this question, 85% who achieved a Level 3 on the assessment, 48% who achieved a Level 2 and 22% who achieved a Level 1 selected the correct response.

French-Language Schools

	No Response	A	B	C	D
Below Level 1	ND	ND	ND	ND	ND
Level 1	0	44	23	14	19
Level 2	0	22	14	12	52
Level 3	0	7	2	6	86
Level 4	0	1	0	2	97

Among students who received this question, 86% who achieved a Level 3 on the assessment, 52% who achieved a Level 2 and 19% who achieved a Level 1 selected the correct response.

B2. Operations

use knowledge of numbers and operations to solve mathematical problems encountered in everyday life

3 How many groups of 5 are in 35?

KU

A 30 groups

B 8 groups

C 7 groups

D 6 groups

English-Language Schools

	No Response	A	B	C	D
Below Level 1	2	55	21	7	15
Level 1	0	52	20	10	18
Level 2	0	32	12	39	17
Level 3	0	5	2	84	9
Level 4	ND	ND	ND	ND	ND

Among students who received this question, 84% who achieved a Level 3 on the assessment, 39% who achieved a Level 2 and 10% who achieved a Level 1 selected the correct response.

French-Language Schools

	No Response	A	B	C	D
Below Level 1	ND	ND	ND	ND	ND
Level 1	0	56	22	10	13
Level 2	0	30	13	41	16
Level 3	0	2	6	85	7
Level 4	ND	ND	ND	ND	ND

Among students who received this question, 85% who achieved a Level 3 on the assessment, 41% who achieved a Level 2 and 10% who achieved a Level 1 selected the correct response.

B2. Operations (continued)

4 AP There are 42 people playing soccer. After some time, 14 people leave.

How many people are still playing soccer?

A 56 people

B 38 people

C 32 people

D 28 people

English-Language Schools

	No Response	A	B	C	D
Below Level 1	1	27	34	16	23
Level 1	0	22	23	17	38
Level 2	0	8	11	13	68
Level 3	0	2	6	4	89
Level 4	0	0	2	1	97

Among students who received this question, 89% who achieved a Level 3 on the assessment, 68% who achieved a Level 2 and 38% who achieved a Level 1 selected the correct response.

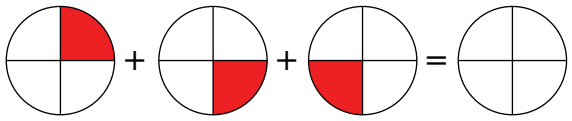
French-Language Schools

	No Response	A	B	C	D
Below Level 1	ND	ND	ND	ND	ND
Level 1	1	29	22	10	38
Level 2	0	11	8	11	71
Level 3	0	3	4	4	89
Level 4	0	0	2	1	97

Among students who received this question, 89% who achieved a Level 3 on the assessment, 71% who achieved a Level 2 and 38% who achieved a Level 1 selected the correct response.

B2. Operations (continued)

5 Which fraction represents the area of the circle
AP that should be red in the answer?



A $\frac{1}{4}$

B $\frac{1}{3}$

C $\frac{3}{3}$

D $\frac{3}{4}$

English-Language Schools

	No Response	A	B	C	D
Below Level 1	1	44	25	11	19
Level 1	0	38	32	10	19
Level 2	0	42	26	8	24
Level 3	0	31	13	4	51
Level 4	0	6	2	1	90

Among students who received this question, 51% who achieved a Level 3 on the assessment, 24% who achieved a Level 2 and 19% who achieved a Level 1 selected the correct response.

French-Language Schools

	No Response	A	B	C	D
Below Level 1	ND	ND	ND	ND	ND
Level 1	0	39	39	9	14
Level 2	0	41	24	10	26
Level 3	0	30	15	6	49
Level 4	0	9	1	4	86

Among students who received this question, 49% wh achieved a Level 3 on the assessment, 26% who achieved a Level 2 and 14% who achieved a Level 1 selected the correct response.

B2. Operations (continued)

6 There are 3 bicycles and 4 tricycles.

TH

bicycle

tricycle

How many tires are there in total?

A 7 tires

B 12 tires

C 14 tires

D 18 tires

English-Language Schools

	No Response	A	B	C	D
Below Level 1	ND	ND	ND	ND	ND
Level 1	ND	ND	ND	ND	ND
Level 2	0	32	10	7	51
Level 3	0	11	5	4	80
Level 4	0	2	2	1	95

Among students who received this question, 80% who achieved a Level 3 on the assessment and 51% who achieved a Level 2 selected the correct response.

French-Language Schools

	No Response	A	B	C	D
Below Level 1	ND	ND	ND	ND	ND
Level 1	ND	ND	ND	ND	ND
Level 2	0	44	8	9	39
Level 3	0	15	7	6	72
Level 4	0	3	1	2	94

Among students who received this question, 72% who achieved a Level 3 on the assessment and 39% who achieved a Level 2 selected the correct response.

C. ALGEBRA

C1. Patterns and Relationships

identify, describe, extend, create, and make predictions about a variety of patterns, including those found in real-life contexts

7 Kelly swims on the days that are circled on this calendar.
AP

S	M	T	W	T	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

How often does Kelly swim?

A Kelly swims every 2 days.

B Kelly swims every 3 days.

C Kelly swims every 4 days.

D Kelly swims every 6 days.

English-Language Schools

	No Response	A	B	C	D
Below Level 1	4	30	15	11	40
Level 1	0	29	22	10	40
Level 2	0	33	29	11	28
Level 3	0	35	46	7	11
Level 4	ND	ND	ND	ND	ND

Among students who received this question, 46% who achieved a Level 3 on the assessment, 29% who achieved a Level 2 and 22% who achieved a Level 1 selected the correct response.

French-Language Schools

	No Response	A	B	C	D
Below Level 1	ND	ND	ND	ND	ND
Level 1	0	16	29	11	44
Level 2	0	21	30	15	35
Level 3	0	13	53	11	22
Level 4	ND	ND	ND	ND	ND

Among students who received this question, 53% who achieved a Level 3 on the assessment, 30% who achieved a Level 2 and 29% who achieved a Level 1 selected the correct response.

C1. Patterns and Relationships (continued)

8 **TH** Tal creates a pattern. He starts at 7 and counts forward by 2s.

Vijay creates a pattern. He starts at 6 and counts forward by 5s.

Which of the following two numbers are in Tal's and Vijay's patterns?

A 11 and 16

B 11 and 21

C 21 and 25

D 21 and 26

English-Language Schools

	No Response	A	B	C	D
Below Level 1	6	26	28	19	21
Level 1	0	35	27	16	22
Level 2	0	44	26	14	15
Level 3	0	49	34	7	9
Level 4	0	40	52	3	5

Among students who received this question, 34% who achieved a Level 3 on the assessment, 26% who achieved a Level 2 and 27% who achieved a Level 1 selected the correct response.

French-Language Schools

	No Response	A	B	C	D
Below Level 1	ND	ND	ND	ND	ND
Level 1	ND	ND	ND	ND	ND
Level 2	0	40	28	15	16
Level 3	0	43	38	8	11
Level 4	0	33	57	2	8

Among students who received this question, 38% who achieved a Level 3 on the assessment and 28% who achieved a Level 2 selected the correct response.

C2. Equations and Inequalities

demonstrate an understanding of variables, expressions, equalities, and inequalities, and apply this understanding in various contexts

9 Which expression is equal to 400?

KU

A 600 – 300

B 300 + 100

C 200 + 300

D 500 – 200

English-Language Schools

	No Response	A	B	C	D
Below Level 1	2	35	16	22	25
Level 1	0	14	65	10	10
Level 2	0	2	94	2	2
Level 3	0	0	99	0	0
Level 4	ND	ND	ND	ND	ND

Among students who received this question, 99% who achieved a Level 3 on the assessment, 94% who achieved a Level 2 and 65% who achieved a Level 1 selected the correct response.

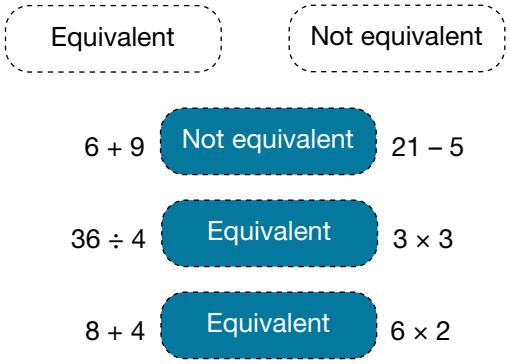
French-Language Schools

	No Response	A	B	C	D
Below Level 1	ND	ND	ND	ND	ND
Level 1	1	10	73	7	10
Level 2	0	1	96	1	2
Level 3	0	0	100	0	0
Level 4	ND	ND	ND	ND	ND

Among students who received this question, 100% who achieved a Level 3 on the assessment, 96% who achieved a Level 2 and 73% who achieved a Level 1 selected the correct response.

C2. Equations and Inequalities (continued)

10 TH Drag and drop "Equivalent" or "Not equivalent" into each box to show the relationship between each set of expressions.



English-Language Schools

	No Response	All Three Correct	One or Two Correct	None Correct
Below Level 1	ND	ND	ND	ND
Level 1	ND	ND	ND	ND
Level 2	0	35	58	6
Level 3	0	66	33	1
Level 4	0	87	13	0

Among students who received this question, 66% who achieved a Level 3 on the assessment and 35% who achieved a Level 2 selected the correct response.

French-Language Schools

	No Response	All Three Correct	One or Two Correct	None Correct
Below Level 1	ND	ND	ND	ND
Level 1	ND	ND	ND	ND
Level 2	0	43	50	7
Level 3	0	75	24	0
Level 4	0	91	9	0

Among students who received this question, 75% who achieved a Level 3 on the assessment and 43% who achieved a Level 2 selected the correct response.

C3. Coding

solve problems and create computational representations of mathematical situations using coding concepts and skills

11 KU Which line of code would create a loop in a program?

A wait 5 seconds

B input **number**

C repeat 3 times

D move forward 1 space

English-Language Schools

	No Response	A	B	C	D
Below Level 1	2	39	30	9	20
Level 1	0	33	26	17	24
Level 2	0	21	26	35	18
Level 3	0	9	25	55	10
Level 4	ND	ND	ND	ND	ND

Among students who received this question, 55% who achieved a Level 3 on the assessment, 35% who achieved a Level 2 and 17% who achieved a Level 1 selected the correct response.

French-Language Schools

	No Response	A	B	C	D
Below Level 1	ND	ND	ND	ND	ND
Level 1	0	31	14	29	26
Level 2	0	24	31	28	16
Level 3	0	16	30	38	15
Level 4	ND	ND	ND	ND	ND

Among students who received this question, 38% who achieved a Level 3 on the assessment, 28% who achieved a Level 2 and 29% who achieved a Level 1 selected the correct response.

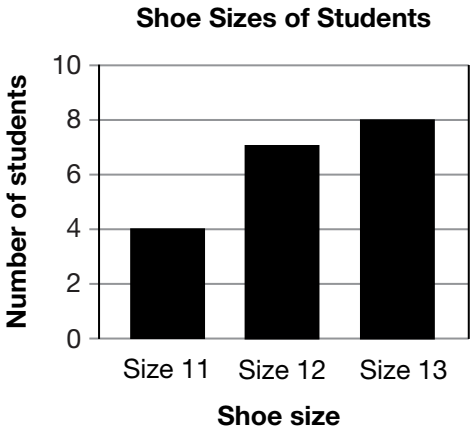
D. DATA

D1. Data Literacy

manage, analyse, and use data to make convincing arguments and informed decisions, in various contexts drawn from real life

12 This graph shows the shoe sizes of students.

KU



A 4 students

B 6 students

C 7 students

D 8 students

How many students wear size 12 shoes?

English-Language Schools

	No Response	A	B	C	D
Below Level 1	ND	ND	ND	ND	ND
Level 1	ND	ND	ND	ND	ND
Level 2	0	12	25	48	15
Level 3	0	3	7	86	4
Level 4	0	0	0	98	1

Among students who received this question, 86% who achieved a Level 3 on the assessment and 48% who achieved a Level 2 selected the correct response.

French-Language Schools

	No Response	A	B	C	D
Below Level 1	ND	ND	ND	ND	ND
Level 1	ND	ND	ND	ND	ND
Level 2	1	8	24	46	22
Level 3	0	3	6	85	5
Level 4	0	1	0	97	1

Among students who received this question, 85% who achieved a Level 3 on the assessment and 46% who achieved a Level 2 selected the correct response.

D1. Data Literacy (continued)

13 AP A total of 21 students are asked about their favourite activity. The results are shown in this pictograph, but information for the key is missing.

Favourite Activity of Students

Reading	☺ ☺ ☺ ☺
Video Games	☺ ☺ ☺
Painting	☺ ◔
Hiking	☺ ☺

Key
Each ☺ represents _____ students.

What is the correct key for this pictograph?

A Each ☺ represents 1 student.

B Each ☺ represents 2 students.

C Each ☺ represents 3 students.

D Each ☺ represents 4 students.

English-Language Schools

	No Response	A	B	C	D
Below Level 1	2	40	18	8	32
Level 1	1	34	19	10	37
Level 2	0	29	35	12	25
Level 3	0	6	69	11	13
Level 4	0	0	96	2	2

Among students who received this question, 69% who achieved a Level 3 on the assessment, 35% who achieved a Level 2 and 19% who achieved a Level 1 selected the correct response.

French-Language Schools

	No Response	A	B	C	D
Below Level 1	ND	ND	ND	ND	ND
Level 1	1	21	20	16	43
Level 2	0	21	35	13	30
Level 3	0	5	71	11	13
Level 4	0	0	96	2	2

Among students who received this question, 71% who achieved a Level 3 on the assessment, 35% who achieved a Level 2 and 20% who achieved a Level 1 selected the correct response.

D2. Probability

describe the likelihood that events will happen, and use that information to make predictions

14 Alma chooses a tile from a bag without looking.

AP

Which bag does she use if the chances of choosing a tile with an even number and choosing a tile with an odd number are equally likely?

A

B

C

D

English-Language Schools

	No Response	A	B	C	D
Below Level 1	2	30	37	9	22
Level 1	0	27	34	15	24
Level 2	0	28	25	20	28
Level 3	0	51	16	13	20
Level 4	0	85	6	4	5

Among students who received this question, 51% who achieved a Level 3 on the assessment, 28% who achieved a Level 2 and 27% who achieved a Level 1 selected the correct response.

French-Language Schools

	No Response	A	B	C	D
Below Level 1	ND	ND	ND	ND	ND
Level 1	0	27	31	20	23
Level 2	0	30	22	20	28
Level 3	0	54	12	15	19
Level 4	0	87	5	4	4

Among students who received this question, 54% who achieved a Level 3 on the assessment, 30% who achieved a Level 2 and 27% who achieved a Level 1 selected the correct response.

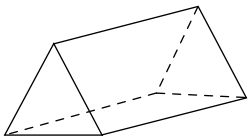
E. SPATIAL SENSE

E1. Geometric and Spatial Reasoning

describe and represent shape, location, and movement by applying geometric properties and spatial relationships in order to navigate the world around them

15 Which option lists **all** the faces of this object?

KU



A 2 triangles, 2 rectangles

B 2 triangles, 3 rectangles

C 3 triangles, 2 rectangles

D 3 triangles, 3 rectangles

English-Language Schools

	No Response	A	B	C	D
Below Level 1	2	46	22	9	21
Level 1	0	40	36	9	16
Level 2	0	27	61	6	6
Level 3	0	9	87	2	2
Level 4	ND	ND	ND	ND	ND

Among students who received this question, 87% who achieved a Level 3 on the assessment, 61% who achieved a Level 2 and 36% who achieved a Level 1 selected the correct response.

French-Language Schools

	No Response	A	B	C	D
Below Level 1	ND	ND	ND	ND	ND
Level 1	1	36	39	8	16
Level 2	0	19	70	4	6
Level 3	0	4	93	2	1
Level 4	ND	ND	ND	ND	ND

Among students who received this question, 93% who achieved a Level 3 on the assessment, 70% who achieved a Level 2 and 39% who achieved a Level 1 selected the correct response.

E1. Geometric and Spatial Reasoning (continued)

16 Choose the **TWO** objects that each have 6 faces, 12 edges and 8 vertices.

AP

A

B

C

D

E

English-Language Schools

	No Response	Fully Correct (A&C)	Partially Correct (A)	Partially Correct (C)	Fully Incorrect
Below Level 1	3	6	32	16	44
Level 1	0	35	28	18	19
Level 2	0	71	15	10	4
Level 3	0	91	5	3	1
Level 4	ND	ND	ND	ND	ND

Among students who received this question, 91% who achieved a Level 3 on the assessment, 71% who achieved a Level 2 and 35% who achieved a Level 1 selected the correct response.

French-Language Schools

	No Response	Fully Correct (A&C)	Partially Correct (A)	Partially Correct (C)	Fully Incorrect
Below Level 1	ND	ND	ND	ND	ND
Level 1	0	52	21	16	12
Level 2	0	83	7	5	5
Level 3	0	90	7	2	0
Level 4	ND	ND	ND	ND	ND

Among students who received this question, 90% who achieved a Level 3 on the assessment, 83% who achieved a Level 2 and 52% who achieved a Level 1 selected the correct response.

E1. Geometric and Spatial Reasoning (continued)

17 TH Which object has a total of 8 vertices and a rectangular base?

A a square-based pyramid

B an octagon-based pyramid

C a rectangle-based prism

D an octagon-based prism

English-Language Schools

	No Response	A	B	C	D
Below Level 1	2	42	21	14	21
Level 1	0	39	23	18	19
Level 2	0	30	21	32	18
Level 3	0	17	13	57	13
Level 4	ND	ND	ND	ND	ND

Among students who received this question, 57% who achieved a Level 3 on the assessment, 32% who achieved a Level 2 and 18% who achieved a Level 1 selected the correct response.

French-Language Schools

	No Response	A	B	C	D
Below Level 1	ND	ND	ND	ND	ND
Level 1	0	38	25	22	15
Level 2	0	19	20	42	19
Level 3	0	14	10	65	11
Level 4	ND	ND	ND	ND	ND

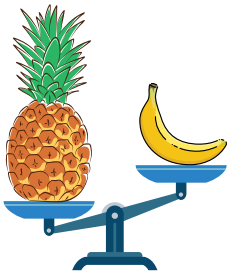
Among students who received this question, 65% who achieved a Level 3 on the assessment, 42% who achieved a Level 2 and 22% who achieved a Level 1 selected the correct response.

E2. Measurement

compare, estimate, and determine measurements in various contexts

18 This scale is not balanced.

KU



Which statement is true?

A The pineapple's mass is equal to the banana's mass.

B The pineapple's mass is less than the banana's mass.

C The banana's mass is greater than the pineapple's mass.

D **The banana's mass is less than the pineapple's mass.**

English-Language Schools

	No Response	A	B	C	D
Below Level 1	2	56	19	12	11
Level 1	0	38	20	13	28
Level 2	0	10	11	12	67
Level 3	0	1	4	7	88
Level 4	ND	ND	ND	ND	ND

Among students who received this question, 88% who achieved a Level 3 on the assessment, 67% who achieved a Level 2 and 28% who achieved a Level 1 selected the correct response.

French-Language Schools

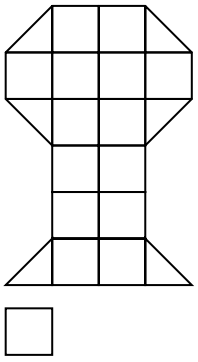
	No Response	A	B	C	D
Below Level 1	ND	ND	ND	ND	ND
Level 1	0	20	26	20	33
Level 2	0	8	13	15	65
Level 3	0	2	4	11	83
Level 4	ND	ND	ND	ND	ND

Among students who received this question, 83% who achieved a Level 3 on the assessment, 65% who achieved a Level 2 and 33% who achieved a Level 1 selected the correct response.

E2. Measurement (continued)

19 What is the area of this shape?

AP



1 cm^2

A 14 cm^2

B 16 cm^2

C 17 cm2

D 20 cm^2

English-Language Schools

	No Response	A	B	C	D
Below Level 1	3	45	22	8	22
Level 1	1	38	21	11	30
Level 2	0	27	17	23	33
Level 3	0	17	12	50	22
Level 4	0	4	4	85	6

Among students who received this question, 50% who achieved a Level 3 on the assessment, 23% who achieved a Level 2 and 11% who achieved a Level 1 selected the correct response.

French-Language Schools

	No Response	A	B	C	D
Below Level 1	ND	ND	ND	ND	ND
Level 1	0	43	9	20	28
Level 2	0	28	14	30	27
Level 3	0	12	10	62	17
Level 4	0	3	3	90	5

Among students who received this question, 62% who achieved a Level 3 on the assessment, 30% who achieved a Level 2 and 20% who achieved a Level 1 selected the correct response.

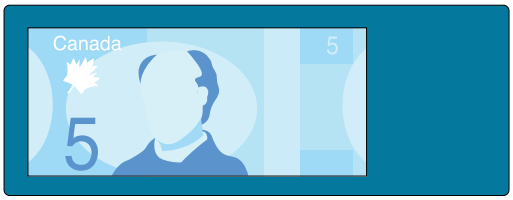
F. FINANCIAL LITERACY

F1. Money and Finances

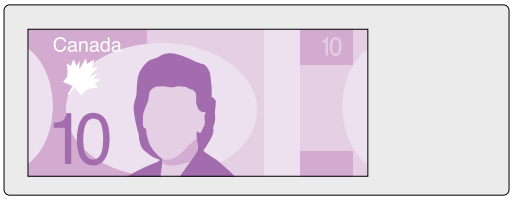
demonstrate an understanding of the value and use of Canadian currency

20 A student buys a book that costs $14. He pays with a $20 bill.
KU Choose the bill that is the best estimate of the change he should receive.

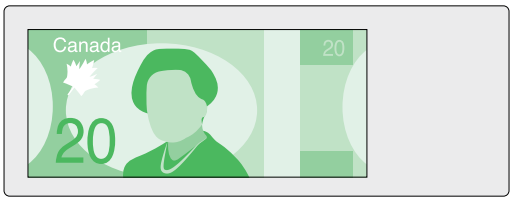
A



B



C



English-Language Schools

	No Response	A	B	C
Below Level 1	1	20	33	45
Level 1	0	21	42	37
Level 2	0	49	37	14
Level 3	0	84	14	2
Level 4	0	96	4	0

Among students who received this question, 84% who achieved a Level 3 on the assessment, 49% who achieved a Level 2 and 21% who achieved a Level 1 selected the correct response.

French-Language Schools

	No Response	A	B	C
Below Level 1	ND	ND	ND	ND
Level 1	0	21	34	45
Level 2	0	45	38	17
Level 3	0	79	18	4
Level 4	0	94	5	1

Among students who received this question, 79% who achieved a Level 3 on the assessment, 45% who achieved a Level 2 and 21% who achieved a Level 1 selected the correct response.

F1. Money and Finances (continued)

21 An item costs 75¢, and the cash given is 80¢.

AP What is the change?

A 5¢

B 10¢

C 15¢

D 25¢

English-Language Schools

	No Response	A	B	C	D
Below Level 1	2	20	26	10	42
Level 1	0	19	18	13	49
Level 2	0	56	9	13	22
Level 3	0	93	2	3	2
Level 4	0	98	2	0	0

Among students who received this question, 93% who achieved a Level 3 on the assessment, 56% who achieved a Level 2 and 19% who achieved a Level 1 selected the correct response.

French-Language Schools

	No Response	A	B	C	D
Below Level 1	ND	ND	ND	ND	ND
Level 1	0	21	25	13	41
Level 2	0	53	10	16	21
Level 3	0	92	1	4	3
Level 4	ND	ND	ND	ND	ND

Among students who received this question, 92% who achieved a Level 3 on the assessment, 53% who achieved a Level 2 and 21% who achieved a Level 1 selected the correct response.