

Sample Assessment Booklet: New Layout

Booklet 1

QUESTIONS

Grade 9 Assessment of Mathematics • Academic

2015

Follow along as your teacher reads the instructions below.

Along with this booklet, make sure you have *Answer Booklet 1* and the Formula Sheet.

You may use any space in this book for rough work for multiple-choice questions only.

Note:

The diagrams in these booklets are **not** all drawn to scale.

The use of cellphones, audio- or video-recording devices, digital music players or e-mail or text messaging devices during the assessment is prohibited.

**No work in this booklet
will be scored.**

Education Quality and
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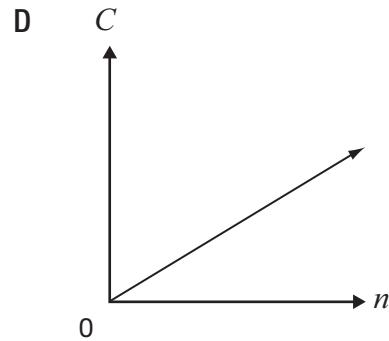
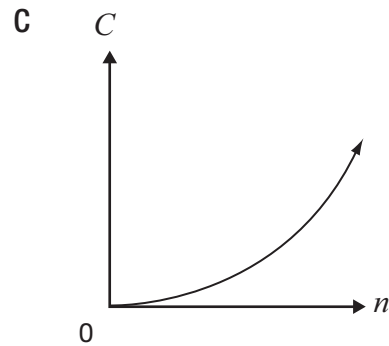
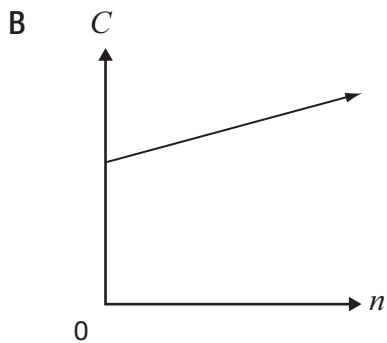
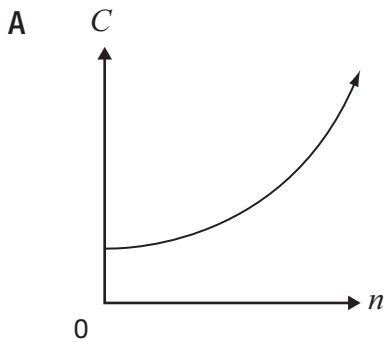
Continue to follow along as your teacher
reads the directions on the cover of
Answer Booklet 1.



Remember to write your answers
in your *Answer Booklet 1*.

- 1** The total yearly cost of a museum membership is made up of a fee of \$25, plus \$5 per visit.

Which graph best represents the relationship between total yearly cost, C , and number of visits, n ?



2 A cellphone company offers four choices for purchasing talk time.

Which of the following has the lowest cost per minute?

- F 200 minutes for \$24.50
- G 550 minutes for \$68.00
- H 700 minutes for \$80.25
- J 850 minutes for \$99.50

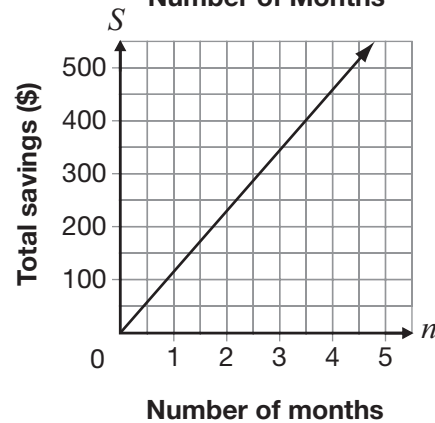
3 The table below shows information about the linear relationship between Ben’s total savings and the number of months he saves money.

Number of months, n	Total savings, S (\$)
3	345
6	540
9	735
12	930

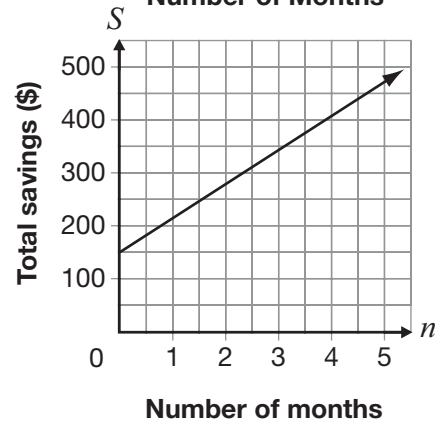
Which of the following represents this relationship?

- A $S = 65n + 345$
- B $S = 195n + 150$

C **Total Savings vs. Number of Months**



D **Total Savings vs. Number of Months**



- 4** Jared uses the equation $C = 30n$ to determine the cost, C , in dollars, for renting a car for n days, where n is a whole number.

If Jared can spend a maximum of \$200 on the rental, which of the following describes the possible values of n ?

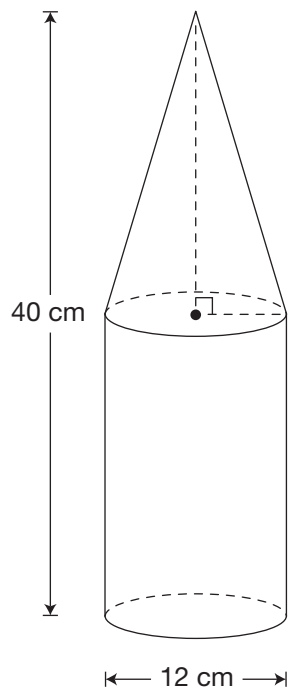
- F** 7, 8, 9, ...
G 6, 7, 8, 9, ...
H 0, 1, 2, 3, 4, 5, 6
J 0, 1, 2, 3, 4, 5, 6, 7

- 5** What goes in the \square to complete the equation below?

$$(8x^3)(\square) = 24x^{12}$$

- A** $3x^9$
B $3x^4$
C $16x^9$
D $16x^4$

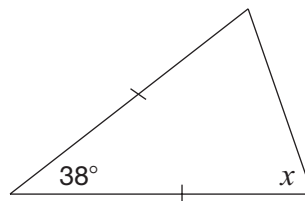
6 The container pictured below is made up of a cone and a cylinder. The cone and the cylinder have the same height.



Which of the following is closest to the volume of the container?

- F 2261 cm^3
- G 3016 cm^3
- H 3393 cm^3
- J 4524 cm^3

7 What is the value of x in the diagram below?



- A 38°
- B 71°
- C 104°
- D 161°



Go to *Answer Booklet 1* and complete the four open-response questions before continuing with question 12.

8 Open-Response

9 Open-Response

10 Open-Response

11 Open-Response

12 The equation of a line is $5x - 2y + 10 = 0$.

Which of the following expresses this equation in the form $y = mx + b$?

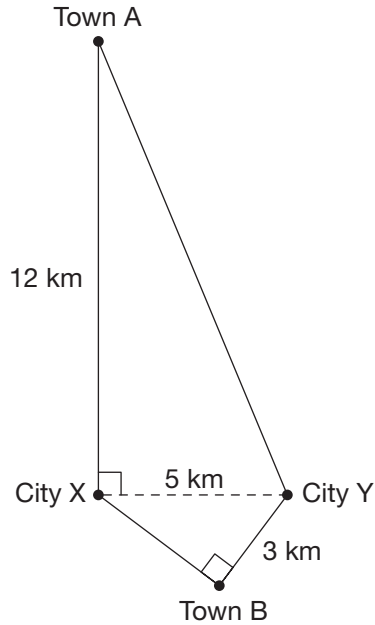
F $y = \frac{5}{2}x + 5$

G $y = \frac{5}{2}x + 10$

H $y = -\frac{5}{2}x + 5$

J $y = -\frac{5}{2}x + 10$

13 The 5 km of highway between City X and City Y is closed. There are two possible detour routes: one through Town A and one through Town B, as shown in the diagram below.



How much shorter is the detour through Town B than the detour through Town A?

- A 7 km
- B 9 km
- C 16 km
- D 18 km

14 Which of the following shows data from a non-linear relation?

F

<i>n</i>	<i>P</i>
1	8
2	5
3	2
4	-1

G

<i>n</i>	<i>P</i>
5	3.25
10	4.00
15	4.75
20	5.50

H

<i>n</i>	<i>P</i>
2	8
4	$8\frac{1}{3}$
6	$8\frac{2}{3}$
8	9

J

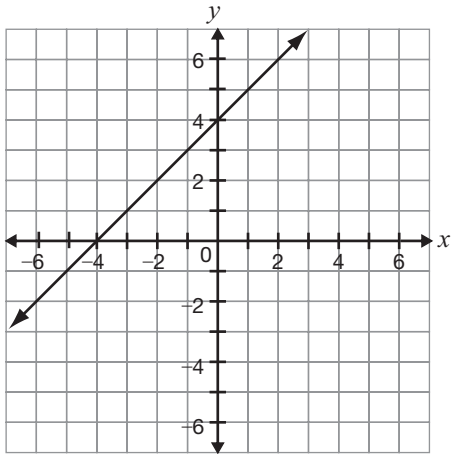
<i>n</i>	<i>P</i>
3	25
6	16
9	9
12	4

15 Consider the line represented by the equation $y = 3x + 2$.

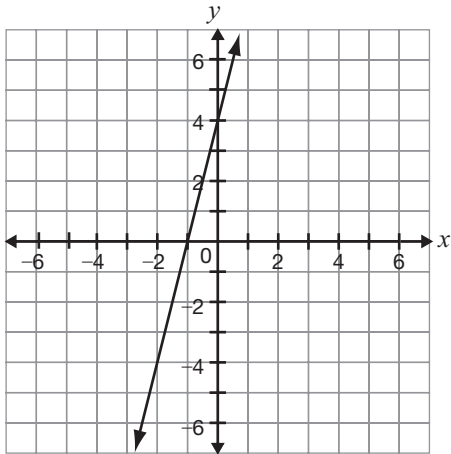
A new line is formed by decreasing the slope and increasing the y -intercept.

Which of the following could be the graph of the new line?

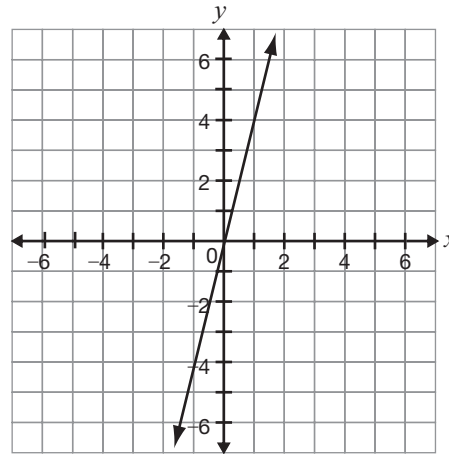
A



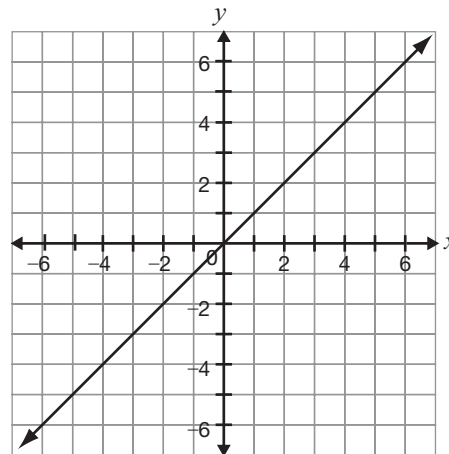
B



C



D



- 16** The sum of the interior angles of a polygon is 2700° .

How many sides does the polygon have?

- F 19
- G 17
- H 15
- J 13

- 17** Gertrude sells shoes.

Her total pay each week is made up of a base salary and a commission of 15% of her sales that week.

One week, her total pay is \$167.50 and she has \$850 in sales.

Which equation below represents the relationship between her total pay, P , each week and sales, s ?

- A $P = 15s$
- B $P = 40 + 0.15s$
- C $P = 850 + 0.15s$
- D $P = 167.50 + 0.15s$

- 18** What is the value of x in the equation

$$-4(2x - 1) = 36?$$

F -4

G $-\frac{35}{8}$

H $-\frac{37}{8}$

J -5



STOP

You have finished *Booklet 1*.

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