Released Assessment Questions, 2018

ANSWERS

Grade 9 Assessment of Mathematics • Applied

DIRECTIONS

Answering Multiple-Choice Questions

Answer all multiple-choice questions. If you fill in more than one answer to a question, or leave a question blank, the question will be scored zero. Incorrect answers will also be scored zero.

Answering Open-Response Questions

Do all of your work for each question in the space provided for the question **only.**

Write your solutions, including all calculations, clearly and completely.

ATTENTION:

There are more open-response questions in this booklet than a regular booklet.

Record ALL your answers to multiple-choice and open-response questions in this booklet.

Education Quality and Accountability Office

EQAO

You are now ready to start.

2 Carlton Street, Suite 1200, Toronto ON M5B 2M9 | Telephone: 1-888-327-7377 | Web site: www.eqao.com |

Please read the questions in the *Question Booklet;* then fill in your answers below.

To indicate your answer, **use a pencil to fill in the appropriate circle below completely.**

Like this: ●

Not like this: ⊗ ✓ ◒ ◉

Cleanly erase your answer if you wish to change it and fill in the circle for your new answer.

Fill in only **one** circle for each question.

1 ⓐ ⓑ ⓒ ⓓ

2 ⓐ ⓑ ⓒ ⓓ

3 ⓐ ⓑ ⓒ ⓓ

4 ⓐ ⓑ ⓒ ⓓ

5 ⓐ ⓑ ⓒ ⓓ

6 ⓐ ⓑ ⓒ ⓓ

7 ⓐ ⓑ ⓒ ⓓ

8 ⓐ ⓑ ⓒ ⓓ

9 ⓐ ⓑ ⓒ ⓓ

10 ⓐ ⓑ ⓒ ⓓ

11 ⓐ ⓑ ⓒ ⓓ

12 ⓐ ⓑ ⓒ ⓓ

13 Pizza Time

A school holds a lunch fundraiser.

- The school has 350 students.
- 70% of the students order lunch.
- $\frac{1}{5}$ of the students who order lunch select sandwiches.
- The rest of the students who order lunch select pizza.

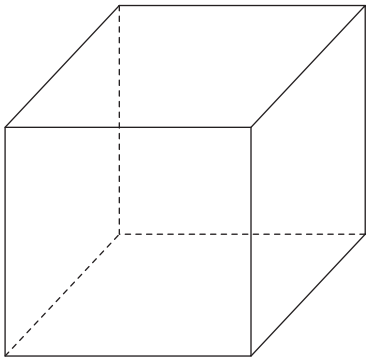
Determine the number of students who order lunch and select pizza.

Show your work.

The number of students who order lunch and select pizza is _____.

14 Soccer Ball in a Box

Soccer balls are packed in boxes. The box is in the shape of a cube, and the ball is in the shape of a sphere. The ball fits tightly inside the box.



$V = s^3$	$V = \frac{4}{3}\pi r^3$
s is the side length	r is the radius

Determine how much **greater** the volume of the box is than the volume of the ball.

Show your work.

The volume of the box is _____ cm^3 greater than the volume of the ball.

15 Food Card

Raj has a card that he uses to buy lunch at school. Each day he spends the same amount.

Information about the relationship between the amount of money left on the card, A, in dollars, and the number of days, n, is given below.

Number of days, n	Amount of money left on card, A ($)
2	31
4	22
6	13

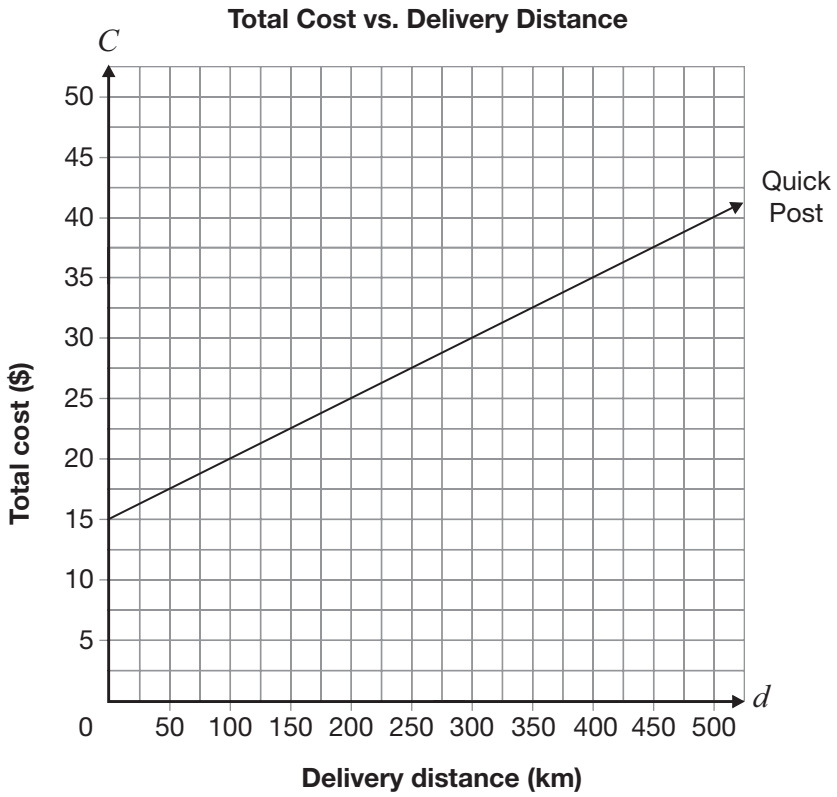
Determine the initial value and the rate of change for this relationship.

Show your work.

Initial value: _____ Rate of change: _____

16 Delivery Dilemma

The total cost to deliver a package with Quick Post is shown by this graph.



The total cost to deliver a package with Post Packages is made up of a $10 initial fee and $0.10 per kilometre.

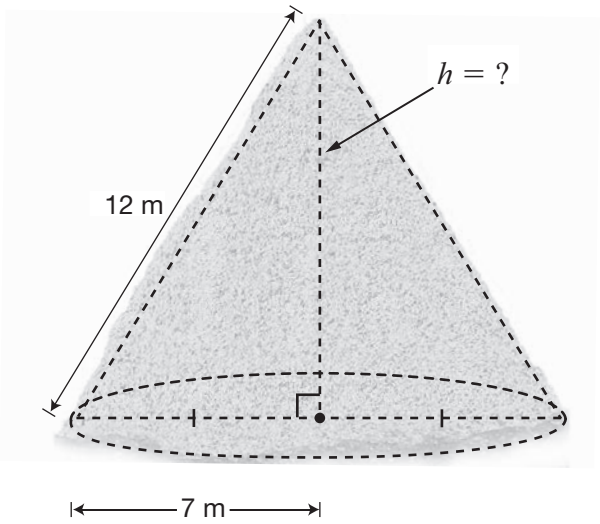
How much **more** will it cost to deliver a package a distance of 250 km with Post Packages than with Quick Post?

Show your work.

It will cost $_____ **more** to deliver a package 250 km with Post Packages than with Quick Post.

17 Gravel Pile

Gravel is stored in a cone-shaped pile with a radius of 7 m and a slant height of 12 m, as pictured below.



Determine the volume of gravel in the pile.

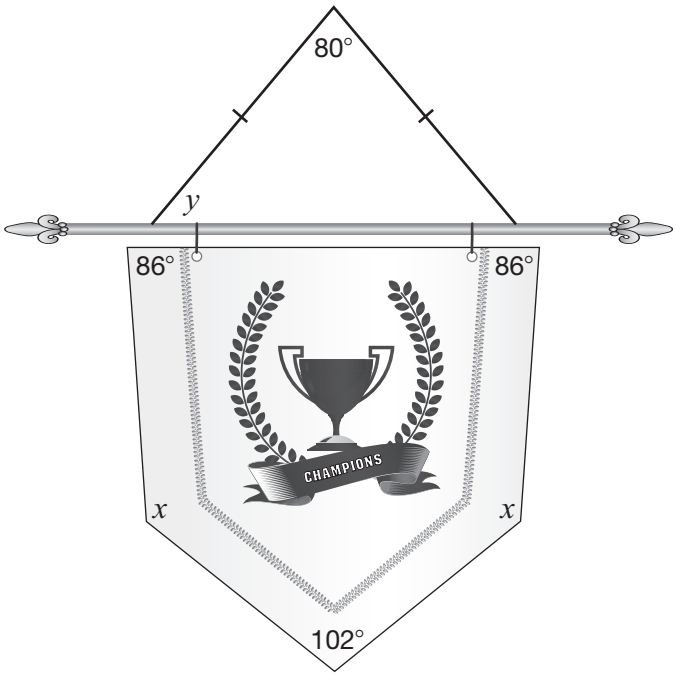
Show your work.

Hint:
Use the Pythagorean theorem.

The volume of the gravel in the pile is _____ m^3.

18 Champions!

A school banner hangs from a ceiling.



Using geometric properties, determine the values of x and y. Justify your answers by showing your calculations or describing the geometric properties you have used.

Value	Calculations or descriptions of geometric properties
$x =$ _____	
$y =$ _____	

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19 ⓐ ⓑ ⓒ ⓓ

20 ⓐ ⓑ ⓒ ⓓ

21 ⓐ ⓑ ⓒ ⓓ

22 ⓐ ⓑ ⓒ ⓓ