

# Released Assessment Questions, 2019

Junior Division

Grade 6

Mathematics

Assessment of Reading, Writing and Mathematics

Education Quality and Accountability Office, 2 Carlton Street, Suite 1200, Toronto ON M5B 2M9

Telephone: 1-888-327-7377, Web site: [www.eqao.com](http://www.eqao.com), © 2019 Queen's Printer for Ontario

## FOR USE WITH ASSISTIVE TECHNOLOGY

### INSTRUCTIONS FOR COMPUTER RESPONSES

#### Answering Multiple-Choice Questions

- Choose only one answer for each question.

### INSTRUCTIONS FOR WRITTEN RESPONSES IN BOOKLET

#### Answering Multiple-Choice Questions

Like this: ●      Not like this: ⊗   ✓   ◐   ⊙

- Use a pencil only.
- Fill only one circle for each question.
- Fill the circle completely.
- Cleanly erase any answer you wish to change.

#### Answering Open-Response Questions

- Write in the space provided in this booklet.

Although the layout of the printed booklets may differ from the layout of the electronic version, the content is the same.

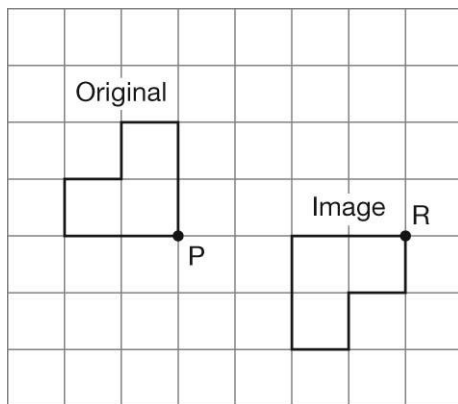
You are now ready to start.

## Mathematics • Multiple-Choice

1. Which of the following has the same value as  $25 \times 4 \times 1 \times 50$ ?

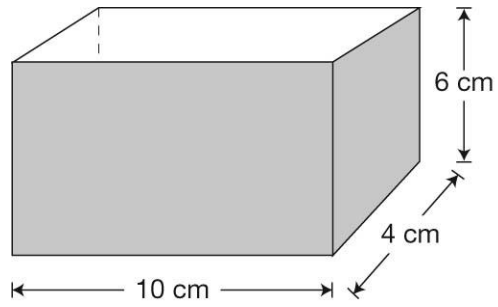
- $25 \times 55$
- $100 \times 50$
- $100 \times 51$
- $25 \times 5 \times 50$

2. Which of the following describes the transformation of the original shape onto the image?



- a rotation of  $180^\circ$  about point P, then a translation 2 units to the right
- a rotation of  $180^\circ$  about point R, then a translation 4 units to the right
- a rotation of  $90^\circ$  clockwise about point P, then a translation 2 units to the right
- a rotation of  $90^\circ$  counter-clockwise about point R, then a translation 4 units to the right

3. What is the surface area of this box if it is open at the top?



- 208 cm<sup>2</sup>
- 168 cm<sup>2</sup>
- 40 cm<sup>2</sup>
- 24 cm<sup>2</sup>

4. What is the mean of these 7 numbers?

4, 8, 2, 10, 3, 2, 6

- 2
- 4
- 5
- 8

5. Which of the following tables of values shows a pattern that follows the rule “Start at 3, and then double the term and add 2 to get the next term”?

Term number	Term
1	3
2	8
3	16
4	32

Term number	Term
1	3
2	6
3	12
4	24

Term number	Term
1	3
2	10
3	24
4	52

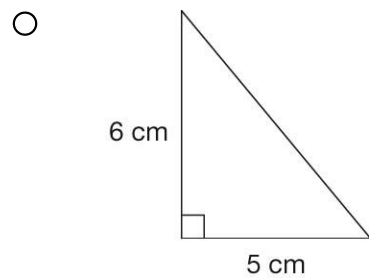
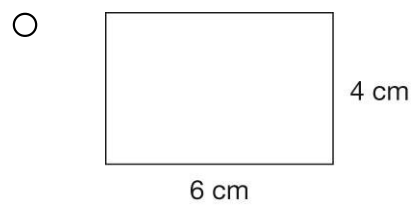
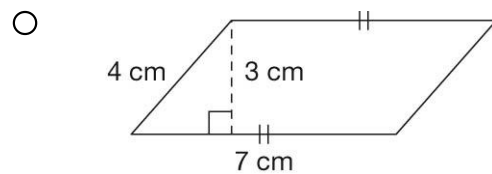
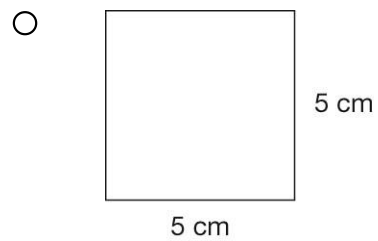
Term number	Term
1	3
2	8
3	18
4	38

6. Which number is a prime number and a factor of both 66 and 72?

- 3
- 6
- 9
- 11

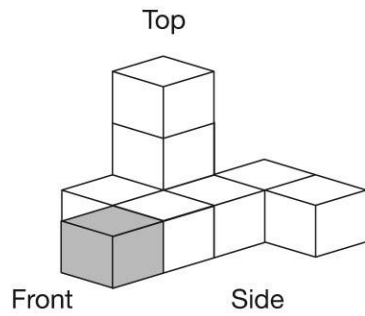
7. A square, parallelogram, rectangle and triangle are shown.

Which one has the largest area?



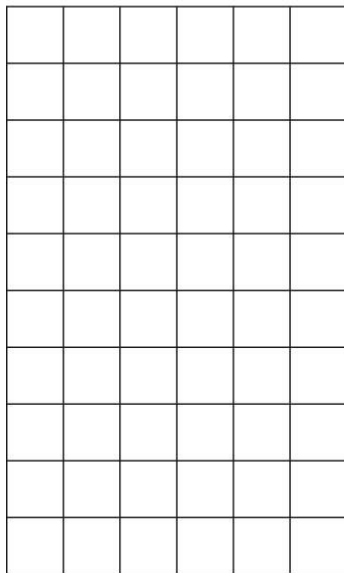
# Mathematics • Open-Response

8. This figure is made using 9 cubes.

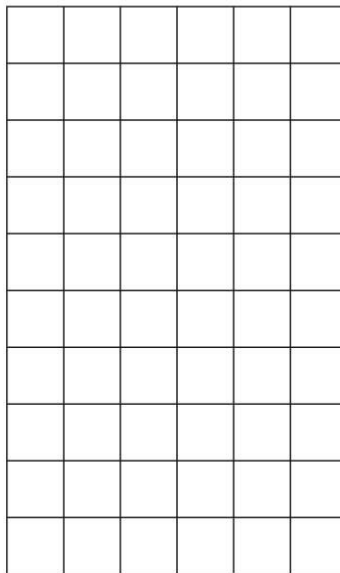


Sketch the top, front and side views of this figure on the grids below.

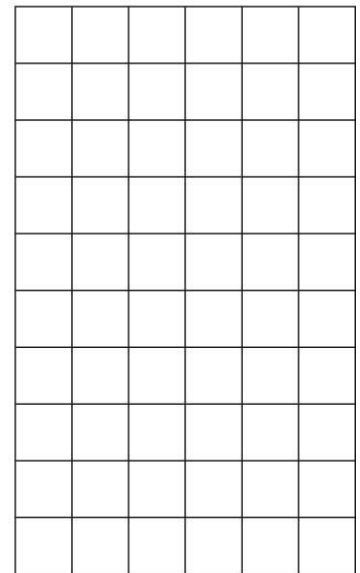
**Top View**



**Front View**



**Side View**



Shade the square that represents the shaded cube in each view.

9. A class receives 3 boxes of paper. Each box contains 20 packages of paper. Each package has 150 sheets. The sheets of paper will be shared equally among 25 students.

Determine the number of sheets of paper each student should receive.

Show your work.

Each student should receive \_\_\_\_\_ sheets of paper.

10. Marisa makes this growing pattern using white and grey squares.

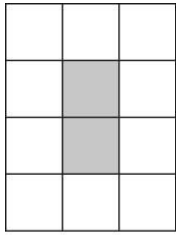


Figure 1

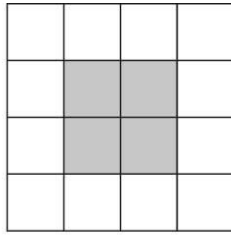


Figure 2

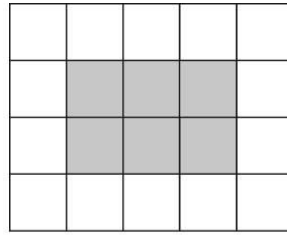


Figure 3

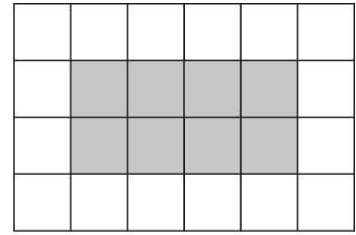


Figure 4

Marisa is making Figure 10. She has 15 white squares and 15 grey squares to make it.

How many **more** white squares and grey squares will she need to make Figure 10?

Show your work.

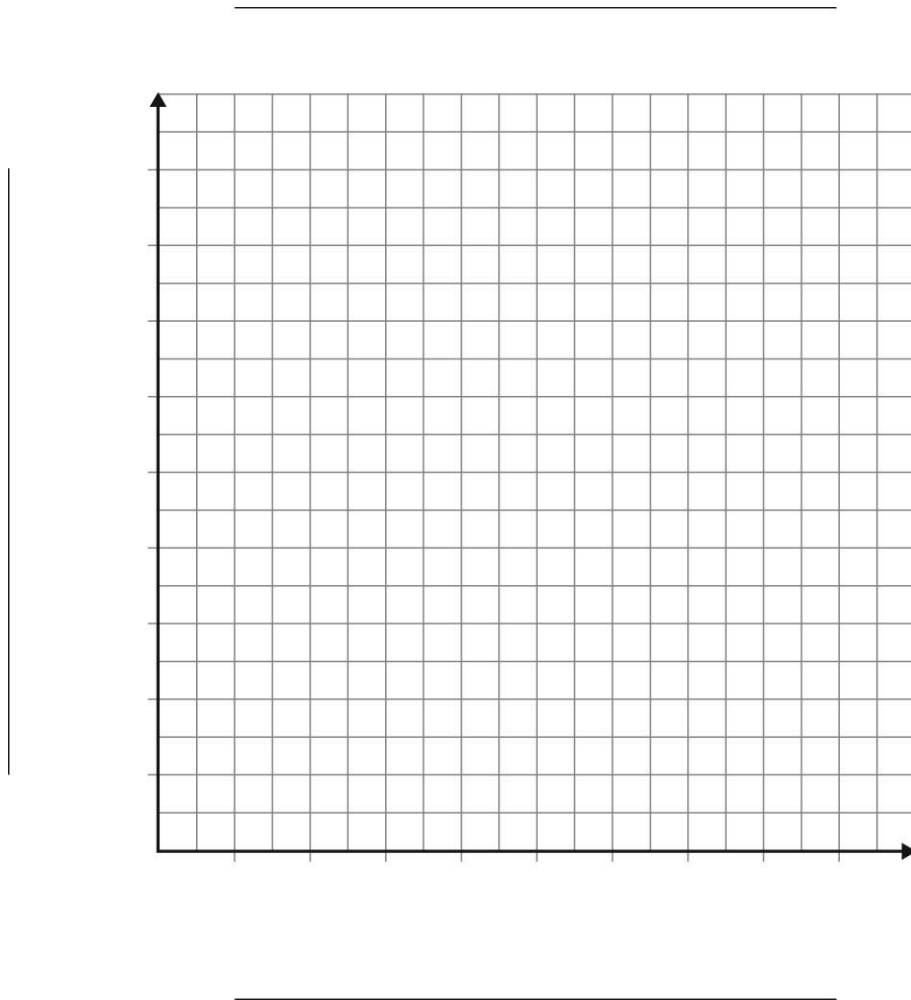
Marisa will need \_\_\_\_\_ more white squares and \_\_\_\_\_ more grey squares to make Figure 10.



11. Mr. Bowens collects this data on how many books the students read during their read-a-thon week.

Day	Number of books read
Monday	45
Tuesday	60
Wednesday	73
Thursday	57
Friday	95

On this grid, create a **line graph** to show how the number of books read each day changes over the week. Be sure to include titles, labels and an appropriate scale.



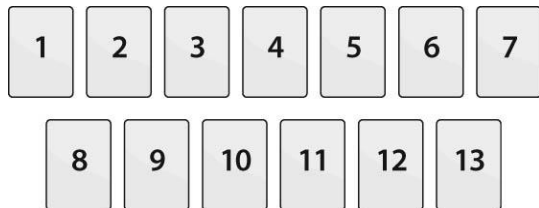
## Mathematics • Multiple-Choice

12. The length of Mrs. Jackson's classroom is 7.5 m.

What is the length of her classroom in **millimetres**?

- 0.075 mm
- 0.75 mm
- 750 mm
- 7500 mm

13. Tristan picks a single card out of this set.



What is the probability that he will pick a number greater than 9?

- $\frac{4}{9}$
- $\frac{3}{13}$
- $\frac{4}{13}$
- $\frac{9}{13}$

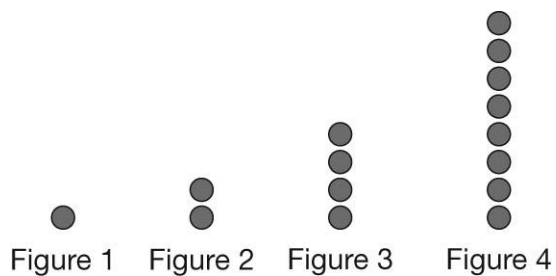
14. Four students run a relay race. Each runner's time is shown.

- 58.409 seconds
- 59.685 seconds
- 59.438 seconds
- 58.127 seconds

How much **less** is the total time of the four runners than the previous record of 240.201 seconds?

- 4.542 seconds
- 5.552 seconds
- 15.458 seconds
- 235.659 seconds

15. A growing pattern is created using round counters.

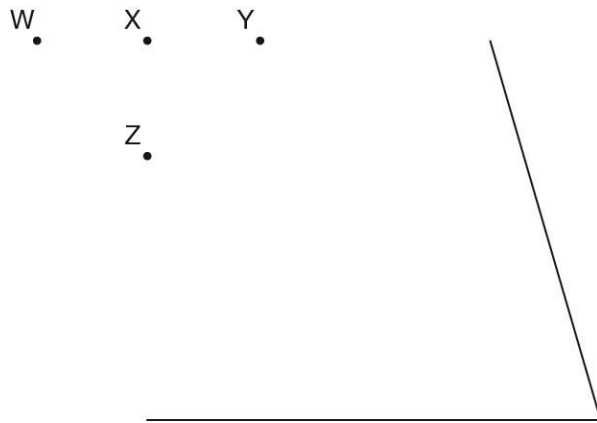


The pattern continues to increase in the same way.

How many counters will there be in Figure 5?

- 9
- 10
- 12
- 16

16. Two sides of a polygon are shown.



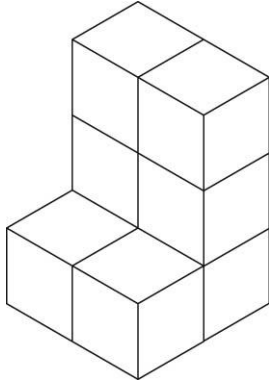
Which point would be used to complete the polygon so it is a **right trapezoid**?

- Point W
- Point X
- Point Y
- Point Z

17. For which equation is there **more than** one possible value for the variable  $a$ ?

- $12 + 6 + a = 26$
- $12 + 6 = 10 + a$
- $a + b = 12$
- $7 \times a = 84$

18. This figure is made using cubes. Each cube has a volume of  $1 \text{ cm}^3$ .



What is the volume of this figure?

- $6 \text{ cm}^3$
- $8 \text{ cm}^3$
- $14 \text{ cm}^3$
- $28 \text{ cm}^3$



**STOP**