

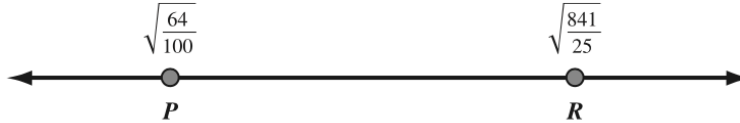
Numerical Response

- 10.** The number of perfect squares that are whole numbers between 2 and 20 is _____.

(Record your answer in the numerical-response section on the answer sheet.)

Use the following information to answer question 15.

The square roots of two rational numbers are represented on the number line shown below.

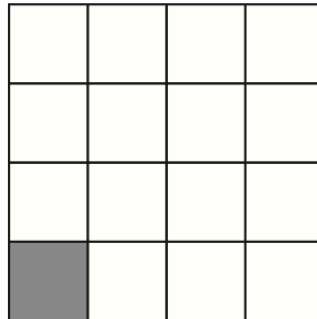


- 15.** If Q is located between points P and R on the number line above, then which of the following square roots could **not** represent Q ?

- A. $\sqrt{\frac{324}{81}}$
- B. $\sqrt{\frac{256}{9}}$
- C. $\sqrt{\frac{225}{64}}$
- D. $\sqrt{\frac{169}{4}}$

Use the following information to answer numerical-response question 7.

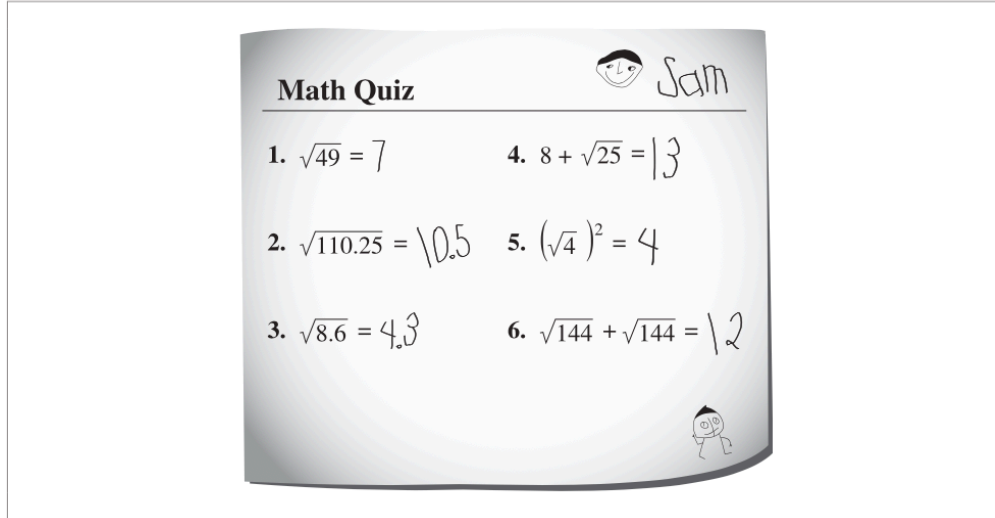
The squares of the grid below are identical. The area of the shaded square on the grid is 9 units².



Numerical Response

- 7.** The perimeter of the grid shown above is _____ units.

(Record your answer in the numerical-response section on the answer sheet.)



13. What percentage of the questions did Sam answer correctly?

- A. 33%
- B. 50%
- C. 67%
- D. 83%

The design shown below is created by four squares with areas of 576 cm^2 , 400 cm^2 , 324 cm^2 , and 196 cm^2 .



34. What is the perimeter of the design shown above?

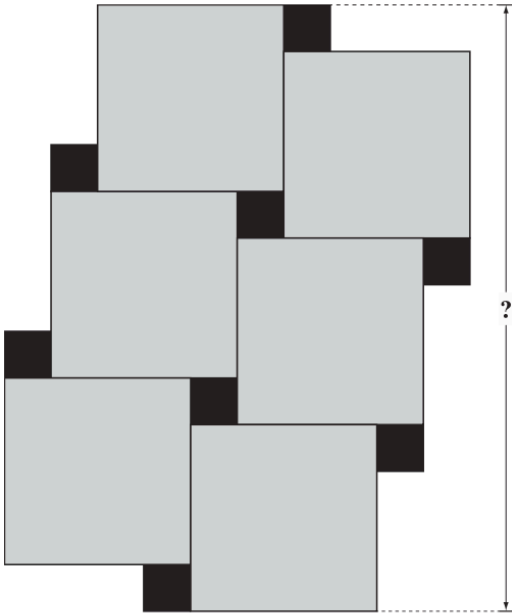
- A. 144 cm
- B. 152 cm
- C. 164 cm
- D. 176 cm

Jack has a large, square section of land with an area of $160\,000\text{ m}^2$. A small, square section is fenced off to create a pasture for his goats. The length of one side of the small section of land is one-eighth of the length of one side of the large section of land.

29. What is the perimeter of the fence that encloses the small, square section of land?
- A. 160 m
 - B. 200 m
 - C. 400 m
 - D. 566 m

Use the following information to answer question 18.

Each grey square in the design below has an area of 77.44 cm^2 , and each black square has an area of 4.84 cm^2 .



The diagram shows a complex arrangement of squares. There are 6 grey squares and 8 black squares. The black squares are placed at the corners of the grey squares to form a larger, irregular shape. A vertical dimension line on the right side of the design is labeled with a question mark '?'.

18. To the nearest tenth of a centimetre, what is the height of the design shown above?
- A. 28.6 cm
 - B. 33.0 cm
 - C. 35.2 cm
 - D. 59.3 cm