Name: _____ **Class:** _____ **Date:** _____ **ID: A**

Math 8 Chapter 1 Review Pack v1

Multiple Choice
Identify the choice that best completes the statement or answers the question.

____ **1.** Which of these numbers is a perfect square: 72, 24, 36, or 18?
A. 24 **B.** 72 **C.** 36 **D.** 18

____ **2.** Which 2 consecutive square numbers is 86 between?
A. 81 and 100 **B.** 85 and 87 **C.** 36 and 40 **D.** 20 and 25

____ **3.** Suzanne wants to put a fence around her square garden.
If the garden covers an area of 169 m^2, how many metres of fencing does she need?
A. 676 m **B.** 52 m **C.** 13 m **D.** 26 m

____ **4.** Find the square of 7.
A. 49 **B.** 14 **C.** 98 **D.** 28

____ **5.** Find $\sqrt{100}$.
A. 25 **B.** 40 **C.** 10 **D.** 50

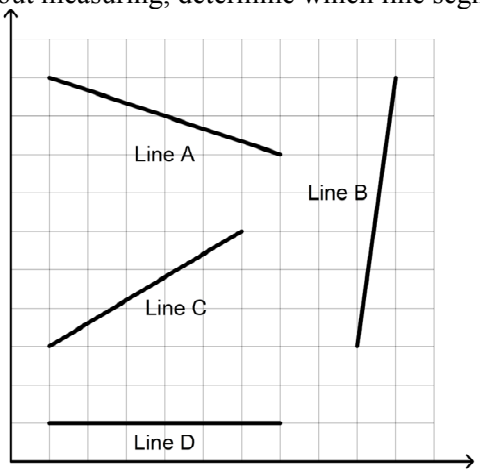
____ **6.** The side length of a square is $\sqrt{25}$ cm. Find its area.
A. 5 cm^2 **B.** 625 cm^2 **C.** 25 cm^2 **D.** 12.5 cm^2

____ **7.** What is the least whole number greater than $\sqrt{54}$?
A. 28 **B.** 8 **C.** 7 **D.** 15

____ **8.** Find the approximate side length of a square with area 37 cm^2.
Give your answer to 1 decimal place.
A. 9.3 cm **B.** 18.5 cm **C.** 6.1 cm **D.** 4.3 cm

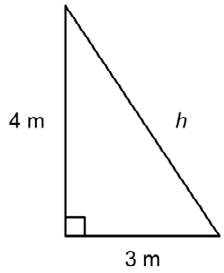
____ **9.** The area of square P is 52 cm^2.
Square Q has an area equal to one quarter the area of square P.
Find the approximate side length of square Q.
Give your answer to 1 decimal place.
A. 1.8 cm **B.** 5.1 cm **C.** 3.6 cm **D.** 13 cm

____ **10.** Without measuring, determine which line segment is shortest.



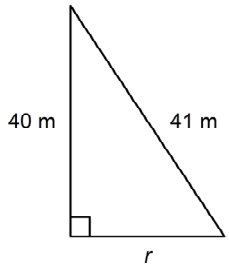
A. Line C **B.** Line B **C.** Line A **D.** Line D

____ **11.** Find the length of the hypotenuse.



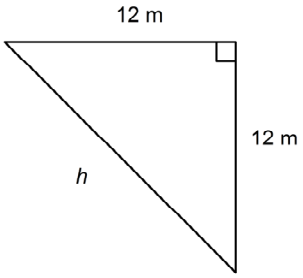
A. 5 m **B.** 4 m **C.** 7 m **D.** 6 m

____ **12.** Find the length of the leg labelled *r*.



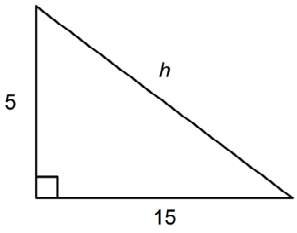
A. 42 m **B.** 30 m **C.** 39 m **D.** 9 m

____ **13.** Find the length of the hypotenuse. Give your answer to 1 decimal place.



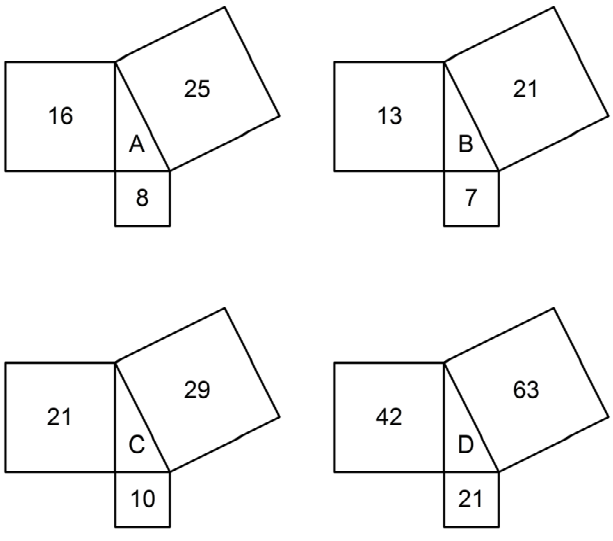
A. 24.0 m **B.** 20.8 m **C.** 8.5 m **D.** 17 m

____ **14.** Find the length of the hypotenuse. Give your answer to 1 decimal place.



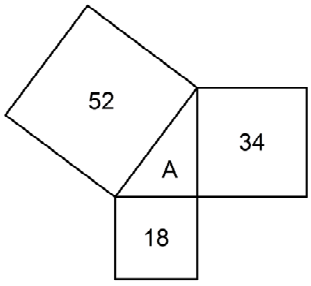
A. 25.0 **B.** 225.0 **C.** 14.1 **D.** 15.8

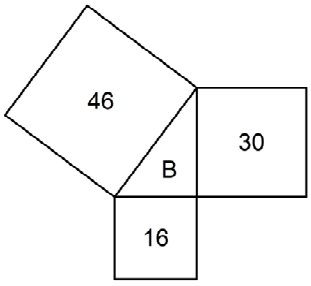
____ **15.** The area, in square centimetres, of the square on each side of a triangle is given. Which triangle is a right triangle?

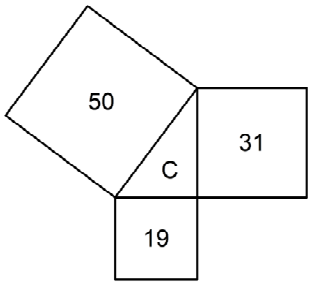


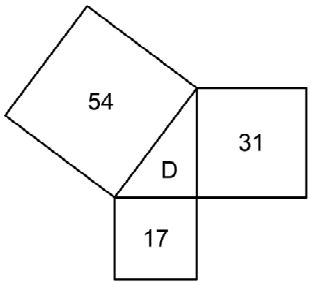
A. Triangle A **B.** Triangle D **C.** Triangle C **D.** Triangle B

____ **16.** The area, in square centimetres, of the square on each side of a triangle is given. Which triangle is NOT a right triangle?



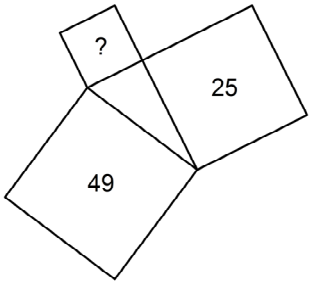






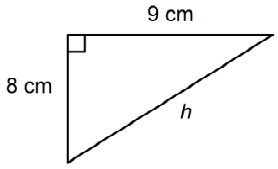
A. Triangle D **B.** Triangle C **C.** Triangle A **D.** Triangle B

____ **17.** The areas, in square centimetres, of the largest square and one of the smaller squares on the sides of a right triangle are given. Determine the area of the third square.



A. 74 cm^2 **B.** 24 cm^2 **C.** 2 cm^2 **D.** 5 cm^2

____ **18.** Find the length of the hypotenuse.
Give your answer to 1 decimal place.



A. 12.0 cm **B.** 5.8 cm **C.** 9.4 cm **D.** 8.5 cm

____ **19.** Ingrid is making a quilt using equal sized squares. Each square has side length 77 cm.
What is the diagonal length of a square? Round your answer to the nearest tenth.
A. 108.9 cm **B.** 133.4 cm **C.** 54.4 cm **D.** 217.8 cm

Short Answer

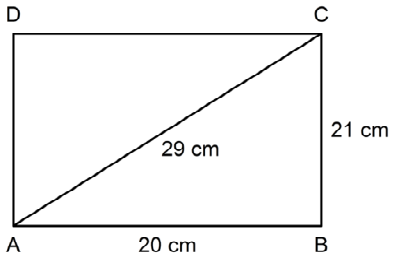
20. Find $\sqrt{16}$.

21. Find $11^2 + 7^2$.

22. The area of a square is 35 cm^2. Find its side length.

23. The side length of a square is $\sqrt{19}$ cm. Find its area.

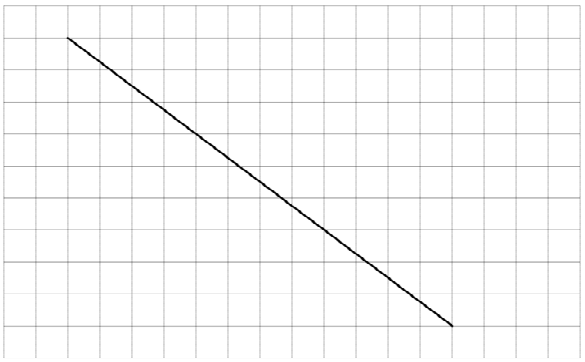
24. Bennie thinks quadrilateral ABCD is a rectangle.
Write the equation that could prove whether or not Bennie is correct.



25. Is 7 greater than, less than, or equal to $\sqrt{56}$?

26. The hypotenuse of a right triangle is 21 cm.
The length of one of the legs is 11 cm.
Find the length of the other leg.

27. Use what you know about the Pythagorean Theorem.
Find the length of the line segment.



Problem

28. A rectangle and a square have the same area.
The rectangle measures 15 cm by 5 cm.
a) Find the area of the square.
b) Write the side length of the square.

29. A square park has area 476 m^2.
a) What are the dimensions of the park? Give your answer to the nearest metre.
b) If fencing costs $18.50/m, how much would it cost to install a fence around the park?
Show your work.

30. Which sets of numbers are Pythagorean triples? Show how you know.
a) 5, 12, 13
b) 26, 36, 45
c) 24, 70, 84
d) 57, 176, 185

31. A rectangular carpet measures 6.8 m by 3.5 m.
Calculate the length of the diagonal. Give your answer to the nearest tenth.