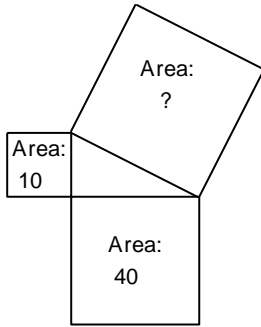


Multiple Choice (1 point each) (Total= 4 points)

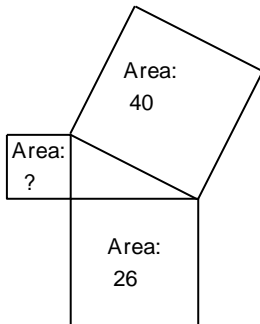
Identify the choice that best completes the statement or answers the question.

___ 1. Find the area of the indicated square.



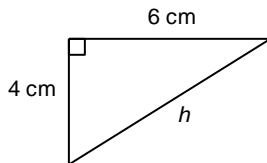
- a. 400 square units
- b. 30 square units
- c. 7.1 square units
- d. 50 square units

___ 2. Find the area of the indicated square.



- a. 3.7 square units
- b. 14 square units
- c. 20 square units
- d. 66 square units

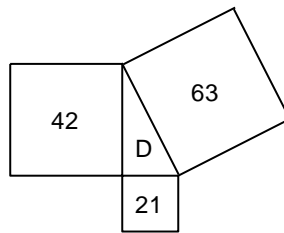
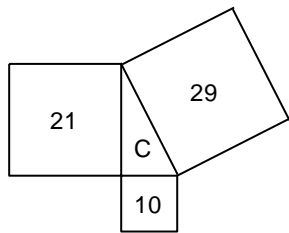
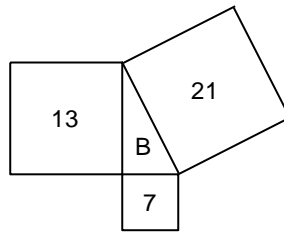
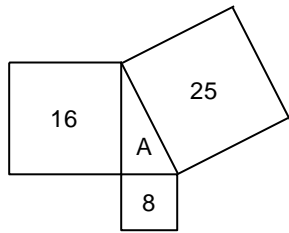
___ 3. Find the length of the hypotenuse.
Give your answer to 1 decimal place.



- a. 4.7 cm
- b. 4.5 cm
- c. 6.3 cm
- d. 7.2 cm

___ 4. The area, in square centimetres, of the square on each side of a triangle is given.

Which triangle is a right triangle?



- a. Triangle B b. Triangle A c. Triangle D d. Triangle C

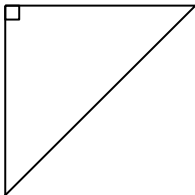
Short Answer [Use Pythagorean Theorem ($a^2 + b^2 = c^2$) Show all of your work.]

5. Draw the triangle and solve the question.
 The hypotenuse of a right triangle is 13 cm.
 The length of one of the legs is 7 cm.
 Find the length of the other leg. (7 points)

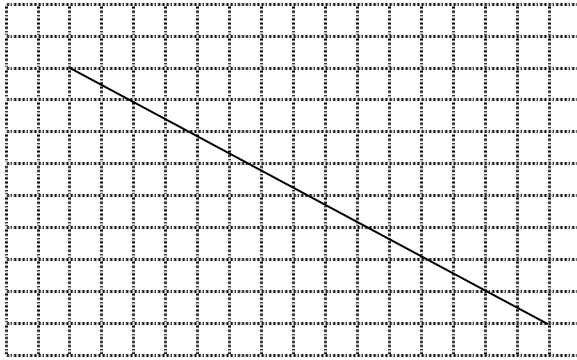
Drawing:

Pythagorean Theorem and solution:

6. Label the hypotenuse on this right triangle. (1 point)



7. Use what you know about the Pythagorean Theorem.
 Find the length of the line segment. (7 points)



8. Draw the picture to represent this question, A square has area 169 cm^2 . Determine the length of the sides and the length of the diagonal. **(7 points)**

.

9. Is this set of numbers a Pythagorean triple? How do you know? **(6 points)**
2, 21, 29

.

10. Draw the picture to represent this question. A rectangular sports field measures 100 m by 50 m. How far will Wendy run if she runs diagonally across the field? Give your answer to the nearest metre. **(6 points)**

.

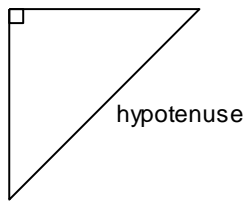
**Grade 8: Unit 1 Score:
Answer Section**

Answers: Your answers on the test would need to show all steps and calculations. Whenever necessary your answers would include the formula for Pythagorean Theorem and a drawing.

SHORT ANSWER

5. ANS:
 $\sqrt{120}$ cm

6. ANS:



7. ANS:
17 units

8. ANS:
Side length: 13 cm
Diagonal length: 18.4 cm

9. ANS:
No, because $2^2 + 21^2 \neq 29^2$.

10. ANS:
125 m