

Unit 5: Triangles

Name _____ Period _____ Score ____/54 pts= _____ %

Quiz #3

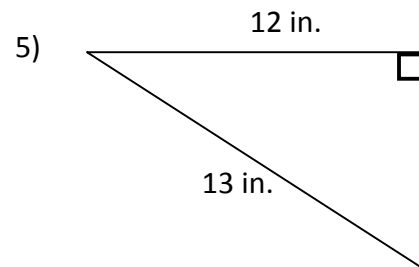
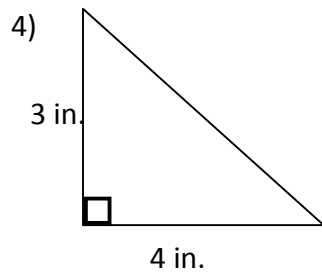
Directions: Determine whether the three side lengths form a right triangle. Show all work.
(3 points each)

1) 11 in, 12 in, 15 in

2) 10 m, 4 m, 6 m

3) $\sqrt{19}$ cm, 9 cm, 10 cm

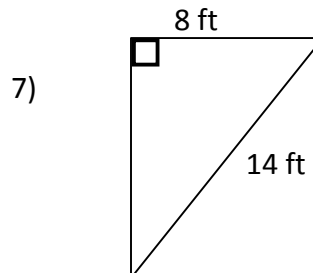
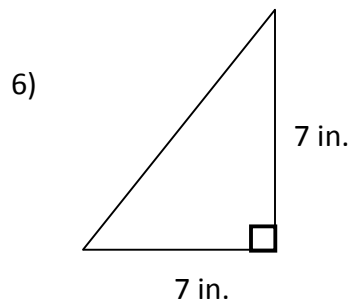
Directions: Find the missing side length of the right triangles using the Pythagorean Theorem. Show all work. If necessary, estimate your answers to the nearest 10th. Remember to include all appropriate units in your final answer.
(3 points each)



Missing side length: _____

Missing side length: _____

Directions: Find the missing side length of the right triangles using the Pythagorean Theorem. Show all work. If necessary, estimate your answers to the nearest 10^{th} . Remember to include all appropriate units in your final answer. *(3 points each)*



Missing side length: _____

Missing side length: _____

Directions: Find the distance between the following points. If necessary, estimate your answer to the nearest 10^{th} . Show all work. *(4 points each)*

8) (3, 4) & (7, 6)

9) (200, 496) & (206, 504)

Distance = _____

Distance = _____

Directions: Read the following questions carefully. If necessary, estimate your answer to the nearest 10th. Remember to include all appropriate units in your final answer. (4 points each)

- 10) A fire truck parks 5 feet away from a building, then extends its' 13-foot ladder up to reach the building. How far up on the building does the ladder rest?

Solution _____

- 11) A square has side lengths of 7 feet each. If you drew a diagonal from one corner to the opposite corner, how long would that diagonal be?

Solution _____

- 12) Michael walked 5 miles north, then 3 miles east. How far did he end up from where he started?

Solution _____

- 13) If a cone has a radius of 1 foot and a **slant height** of 5 feet, what is the height of the cone?

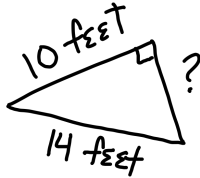
Solution _____

Directions: **Get the Goof!**

(3 points)

- **Circle** where you think the error is occurring in this problem.
- On the lines, **write** what error the student has made in enough detail to prove your knowledge of this problem.
- Find the correct answer to the question. If necessary, estimate to the nearest 10th. Remember to include all appropriate units in your final answer.

14) Question:



ANSWER:

$$\begin{aligned} A^2 + B^2 &= C^2 \\ 10^2 + 14^2 &= C^2 \\ 100 + 196 &= C^2 \\ 296 &= C^2 \\ \sqrt{296} &= \sqrt{C^2} \end{aligned}$$

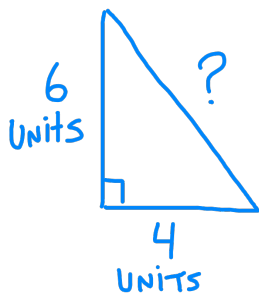
$$17.2 \approx C$$

feet

Directions: **Circle the best answer to the question.**

- 15) In the following problem, you're looking for the missing hypotenuse in the right triangle. You have four answer choices. Your job is to determine which handwritten answers, if any, are correct answers.

(3 points)



- A) 52
B) $\sqrt{4^2 + 6^2}$
C) $\sqrt{6^2 - 4^2}$
D) $4^2 - 6^2 \div 2$

- A) All of the answers are correct
B) None of the answers are correct
C) A is the only correct answer
D) B is the only correct answer
E) C is the only correct answer

Directions: Circle all correct answers from the list provided.

(3 points)

16) The Pythagorean Theorem is used for which of the following?

- A) Proving that 3 sides form a triangle
- B) Proving that 3 sides form a right triangle
- C) Finding missing angles in triangles
- D) Finding missing angles in right triangles
- E) Finding the area of right triangles
- F) Finding missing sides in right triangles