



ST. LAWRENCE HIGH SCHOOL

A JESUIT CHRISTIAN MINORITY INSTITUTION



Sub: Algebra Geometry

Class: 7

Date: 12. 05.20

Duration: 40 min

Worksheet -20

Full Marks: 15

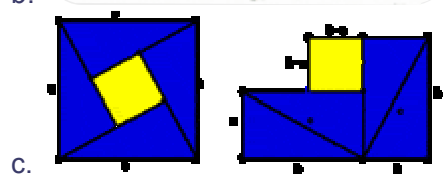
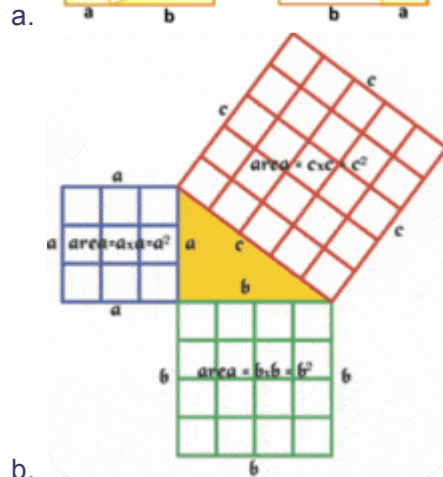
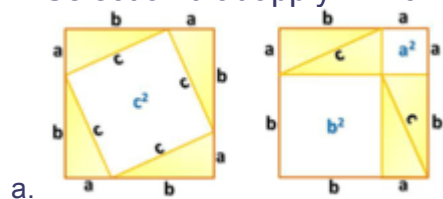
PYTHAGORAS THEOREM

Choose the Correct options:

1. The legs of a right triangle are represented by a and b , and the hypotenuse of the right triangle is represented by c . Which equation represents the Pythagorean Theorem?

- a. $a^2 + b^2 = c^2$
- b. $a^2 + c^2 = b^2$
- c. $a + b = c$

2. Select all that apply: which is/are a proof of the Pythagorean Theorem?

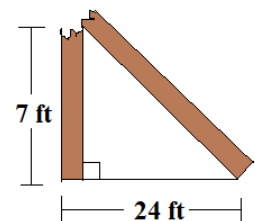


3. The bottom of a ladder is placed 4 feet from the side of a building. The top of the ladder must be 13 feet off the ground. What is the shortest ladder that will do the job?

- a. 10 foot ladder
- b. 12 foot ladder
- c. 14 foot ladder

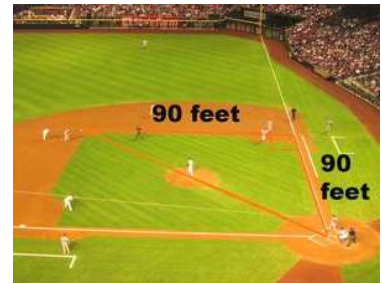
4. A telephone pole broke and fell down as shown. To the nearest foot what was the original height of the pole?

- a. 19 feet
- b. 25 feet
- c. 32 feet



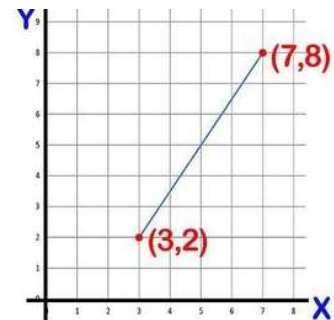
5. A baseball diamond at a playground is a square with sides that measure 90 feet. About how long would a straight line be from home plate to second base? Round your answer to the nearest tenth.

- a. 180 feet
- b. 127.3 feet
- c. 16,200 feet



6. What's the distance between the two points?

- a. 6 Units
- b. 8 units
- c. 7.2 units



7. The vertices of a triangle are A(1,2), B(3,4), and C (4,1). What is the length of the shortest side of the triangle.

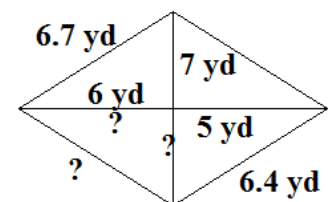
- a. 3.16 units
- b. 2.8 units
- c. 4.2 units

8. Select three sides lengths, in centimeters (cm), that can form a right triangle.

- a. 5 cm, 6cm, 8 cm
- b. 6 cm, 8 cm, 10 cm
- c. 8 cm, 5 cm, 10 cm

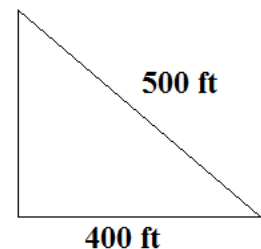
9. Which measurements, rounded to the nearest tenth of a yard, are the unknown lengths in the figure shown? Choose three.

- a. 4.0 yd, 5.8 yd, 7.2 yd
- b. 5.8 yd, 7.2 yd, 8.1 yd
- c. 7.2 yd, 8.1 yd, 4.0 yd



10. A kite is flying at the end of a string 500 feet long. If the kite is directly above a point 400 feet from the end of the string, how high is the kite above the ground?

- a. 400 feet
- b. 250 feet
- c. 300 feet



11. Which of the following set of numbers cannot be the measurements of the sides of a right triangle?

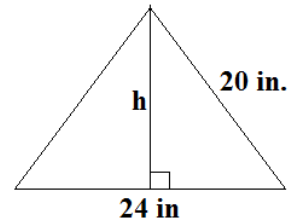
- a. 7, 21, 25.
- b. 20, 21, 29
- c. 36, 77, 85

12. To the nearest tenth of a inch, find the lengths of a diagonal of a square whose side lengths is 8 inches.

- a. 8 inches
- b. 11.3 inches
- c. 12 inches

13. Use the Pythagorean Theorem to find the height of the triangle.

- a. 14 inches
- b. 13.26 inches
- c. 16 inches



14. A cone has a slant height of 25 inches and a radius of 7 inches as shown. What is the height, h , in inches, of the cone?

- a. 24 inches
- b. 25 inches
- c. 12 inches

15. In figure value of x is

- a. 4
- b. 3
- c. 5

