Definitions

1

Story Problems 4

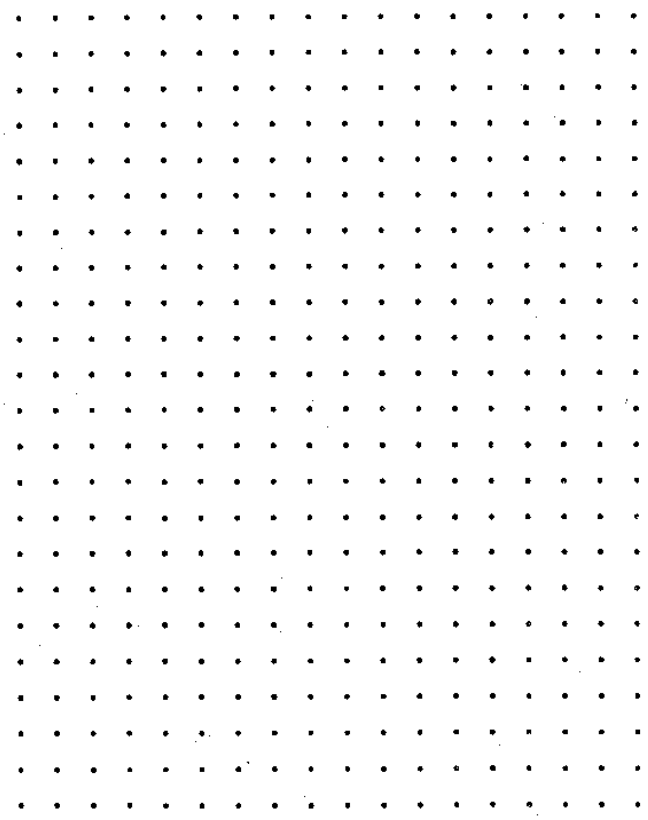
4. Mark and Sarah start walking at the same point, but Mark walks 50 ft north while Sarah walks 75 ft east. How far apart are Mark and Sarah when they stop?

5. An escalator is 32 ft tall and begins 40 ft from a wall. What distance does the escalator carry shoppers?

6. Two airplanes leave the same airport at the same time. The first plane flies to a landing strip 350 miles south, while the other plane flies to an airport 725 miles west. How far apart are the two planes after they land?

14

Discover Pythagorean Theorem



3

Story Problems 2

4. A utility pole 10 m high is supported by two guy wires. Each guy wire is anchored 3 m from the base of the pole. How many meters of wire are needed for the guy wires?

5. A 12-foot ladder is resting against a wall. The base of the ladder is 2.5 feet from the base of the wall. How high up the wall will the ladder reach?

6. The base-path of a baseball diamond form a square. If it is 90 ft from home to first, how far does the catcher have to throw to catch someone stealing second base?

12

Story Problems 3

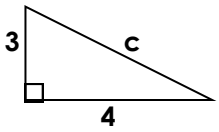
1. **A football field is 100 yards with 10 yards at each end for the end zones. The field is 45 yards wide. Find the length of the diagonal of the entire field, including the end zones.**

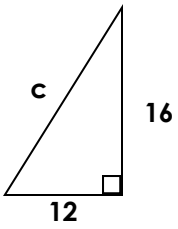
2. **A TV screen measures approximately 15.5 in. high and 19.5 in. wide. A TV is advertised by giving the approximate length of the diagonal of its screen. How should this TV be advertised?**

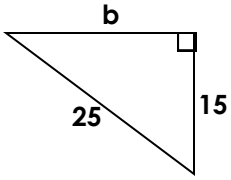
3. **To meet federal guidelines, a wheelchair ramp that is constructed 10 rise 1 ft off the ground must extend 12 ft along the ground. How long will the ramp be? Round to the nearest tenth.**

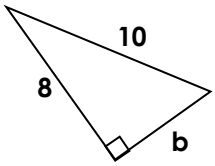
Examples (whole numbers)

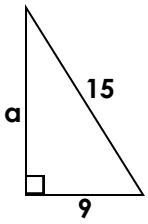
Find the missing parts of the triangles.

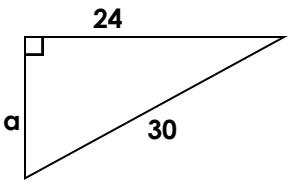












5

Find the missing parts of the triangles.

a = 36 b = 48 c= ?

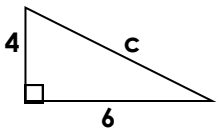
a = 30 b = ? c= 50

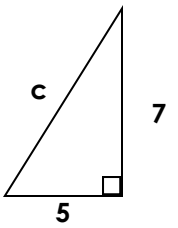
a = ? b = 200 c= 250

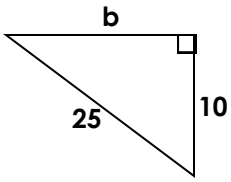
10

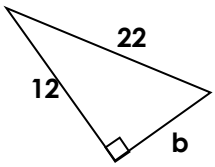
Examples (square roots and estimates)

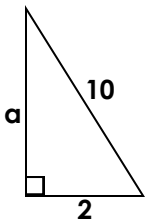
Find the missing parts of the triangles.

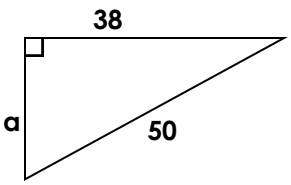












7

Find the missing parts of the triangles.

a = 4 b = 9 c= ?

a = 7 b = ? c= 20

a = ? b = 13 c= 30

8

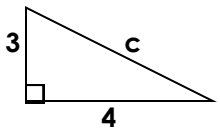
Story Problems 1

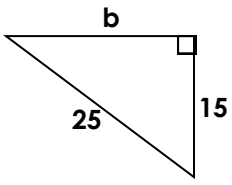
1. **A traffic helicopter flies 10 miles due north and then 24 miles due east. Then the helicopter flies in a straight line back to its starting point. What was the distance of the helicopter's last leg back to its starting point?**

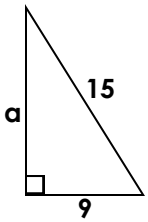
2. **Mr. and Mrs. Flores commute to work each morning. Mr. Flores drives 8 miles east to his office. Mrs. Flores drives 15 miles south to their office. How many miles away do Mr. and Mrs. Flores work from each other?**

3. **For safety reasons, the base of a 24-foot ladder must be placed at least 8 feet from the wall. To the nearest tenth of a foot, how high can a 24-foot ladder safely reach?**

Pythagorean Triples







Find the missing parts of the triangles.

a = 27 b = 36 c= ?

a = 21 b = ? c= 35

a = ? b = 24 c= 40