

Pythagorean Theorem Practice Worksheet

Name _____ Class Period _____

Pythagorean Theorem

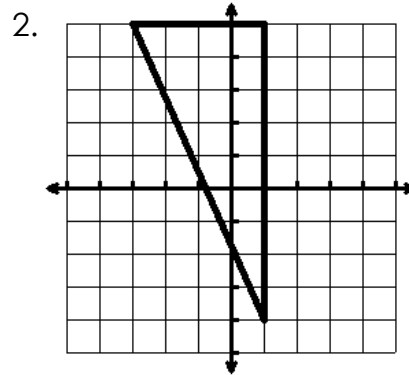
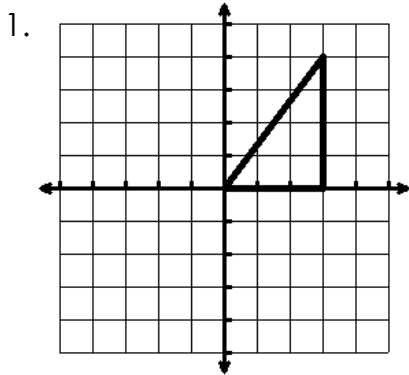
$$\text{leg}^2 + \text{leg}^2 = \text{hyp}^2$$

OR

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

Where a and b are the legs and c is the hypotenuse of a right triangle.

Use the **Pythagorean Theorem** to find the length of each hypotenuse:



Use the Pythagorean Theorem to find the missing side. When necessary, give the exact answer as well as a decimal rounded to the nearest tenth.

3. leg = 8, leg = 15, hyp = _____

4. leg = 3, leg = _____, hyp = 12

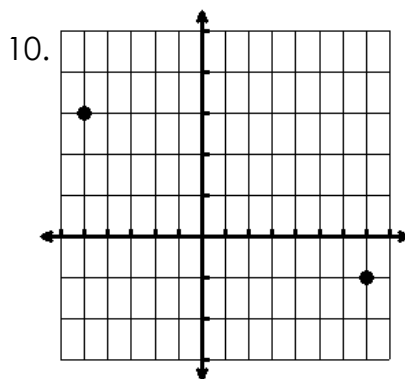
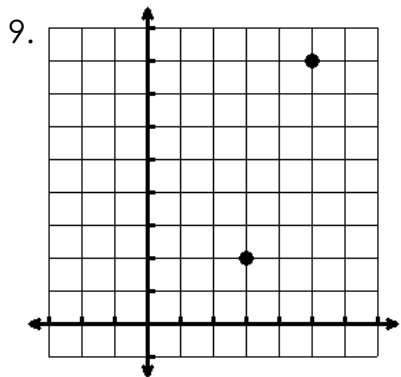
5. a = _____, b = 8, c = 10

6. a = 7, b = _____, c = $\sqrt{65}$

7. $c = \underline{\hspace{2cm}}$, $b = 5$, $a = 12$

8. $b = 9$, $a = \underline{\hspace{2cm}}$, $c = 20$

Use the **Pythagorean Theorem** to find the distance between each pair of points.



11. What is the length of the altitude of an equilateral triangle if a side is 10 in? Round to the nearest tenth.

12. A 20 foot ladder is leaning against a building. The foot of the ladder is 12 feet from the base of the building. How high is the top of the ladder along the building? Round to the nearest tenth.

13. A square has a diagonal with length of 14 cm. What is the measure of each side? Round to the nearest tenth.