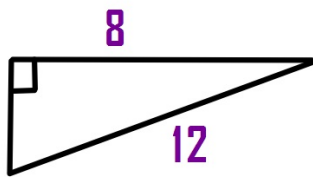


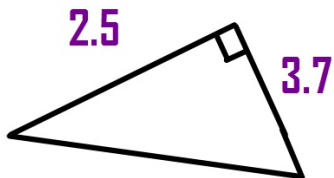
Warm-Up

Find the missing leg or hypotenuse. Round to the nearest tenth.

1)



2)



Bonus: A 15 foot ladder leans against a house. The base of the ladder is 5 feet from the house. How far up the wall does the ladder reach?

$$1) a^2 + b^2 = c^2$$

$$a^2 + 8^2 = 12^2$$

$$a^2 + 64 = 144$$

$$a^2 = 80$$

$$\sqrt{a^2} = \sqrt{80}$$

$$a = 8.94$$

$$a = 8.9$$

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

$$2.5^2 + 3.7^2 = c^2$$

$$6.25 + 13.69 = c^2$$

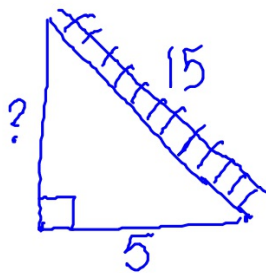
$$19.94 = c^2$$

$$\sqrt{19.94} = \sqrt{c^2}$$

$$4.46 = c$$

$$4.5 = c$$

Bonus:



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

$$a^2 + 5^2 = 15^2$$

$$a^2 + 25 = 225$$

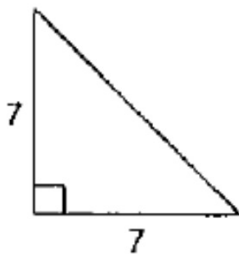
$$a^2 = 200$$

$$\sqrt{a^2} = \sqrt{200}$$

$$a = 14.14$$

$$a = 14.1 \text{ ft}$$

5)



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

$$7^2 + 7^2 = c^2$$

$$49 + 49 = c^2$$

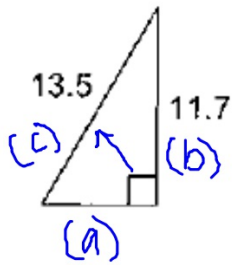
$$98 = c^2$$

$$\sqrt{98} = \sqrt{c^2}$$

$$9.89 = c$$

$$9.9 = c$$

7)



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

$$a^2 + 11.7^2 = 13.5^2$$

$$\sqrt{a^2} = \sqrt{45.36}$$

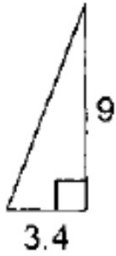
$$a^2 + 136.89 = 182.25$$

$$a = 6.73$$

$$a^2 = 45.36$$

$$\boxed{a = 6.7}$$

9)



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

$$9^2 + 3.4^2 = c^2$$

$$81 + 11.56 = c^2$$

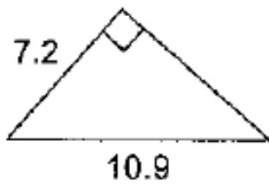
$$92.56 = c^2$$

$$\sqrt{92.56} = \sqrt{c^2}$$

$$9.62 = c$$

$$9.6 = c$$

11)



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

$$7.2^2 + b^2 = 10.9^2$$

$$51.84 + b^2 = 118.81$$

$$\sqrt{b^2} = \sqrt{66.97}$$

$$b = 8.18$$

$$b = 8.2$$

13) $a = 6.4$, $b = ?$, $c = 13.1$

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

$$6.4^2 + b^2 = 13.1^2$$

$$40.96 + b^2 = 171.61$$

$$b^2 = 130.65$$

$$\sqrt{b^2} = \sqrt{130.65}$$

$$b = 11.43$$

$$b = 11.4$$

15) $a = 7.8$, $b = 13.8$, $c = ?$

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

$$7.8^2 + 13.8^2 = c^2$$

$$60.84 + 190.44 = c^2$$

$$251.28 = c^2$$

$$\sqrt{251.28} = \sqrt{c^2}$$

$$15.85 = c$$

$$15.9 = c$$

Pythagorean Matching Activity

Practice: Show all work on a separate sheet of paper. Find the missing leg or hypotenuse. Your answer should match an answer listed in the middle section. Whatever you do not finish is your homework.