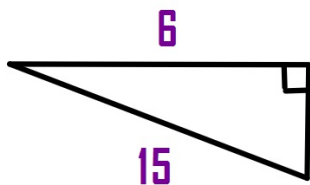


### Warm-Up

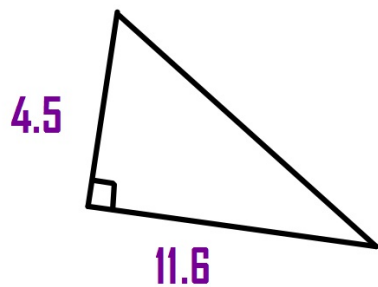
Solve and round to the nearest tenths place.

1)



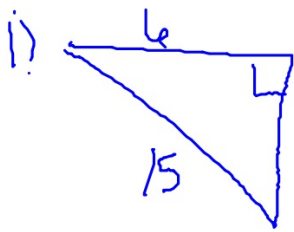
3. Solve.  $\frac{4x - 6}{10} = 20$

2)



4. Solve.  $\frac{1x + 7}{8} = 31$

5. A rectangular flower bed is 9 feet wide and 12 feet long. What is the length of the diagonal?



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

$$a^2 + b^2 = 15^2$$

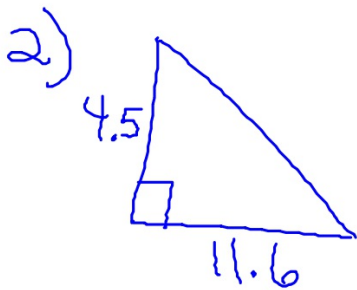
$$a^2 + 36 = 225$$

$$a^2 = 189$$

$$\sqrt{a^2} = \sqrt{189}$$

$$a = 13.74$$

$$a = 13.7$$



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

$$4.5^2 + 11.6^2 = c^2$$

$$20.25 + 134.56 = c^2$$

$$154.81 = c^2$$

$$\sqrt{154.81} = \sqrt{c^2}$$

$$12.44 = c$$

$$12.4 = c$$

$$3) \frac{4x-6}{10} = 20$$

$$4x-6 = 200$$

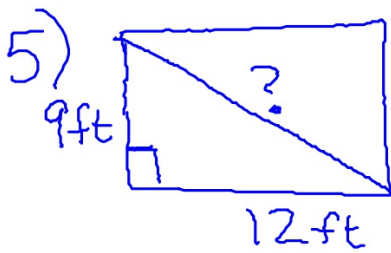
$$4x = 206$$

$$x = 51.5$$

$$4) \frac{1}{8}x + 7 = 31$$

$$\frac{1}{8}x = 24$$

$$x = 192$$



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

$$9^2 + 12^2 = c^2$$

$$81 + 144 = c^2$$

$$225 = c^2$$

$$\sqrt{225} = \sqrt{c^2}$$

$$15 = c$$

$$\boxed{15 \text{ ft} = c}$$

**Go over HW Answers- Group collaboration and correction (8 min)**

## **Pythagorean Theorem Quiz (30 minutes)**

**If you finish early, you may get on edgenuity**

## Pythagorean Triples

## Pythagorean Triple

A "Pythagorean Triple" is a set of positive integers **a**, **b** and **c** that fits the rule:

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

Perfect Squares

Ex...3,4,5

\*\*\*The Largest number is always the hypotenuse.

## Pythagorean Triple

Steps: Sub & Solve. Is it True?

Ex. 1 Is 6, 8, 10 a triple?

$$a^2 + b^2 = c^2$$
$$6^2 + 8^2 = 10^2$$

$$36 + 64 = 100$$
$$100 = 100 \checkmark$$

Ex. 2 Is 4, 32, 54 a triple?

$$a^2 + b^2 = c^2$$
$$4^2 + 32^2 = 54^2$$
$$16 + 1024 = 2916$$

$$1040 \neq 2916$$

not a triple

Ex. 3 Does 10, 12, 15 make a right triangle?

Ex. 4 Does 13, 84, 85 make a right triangle?