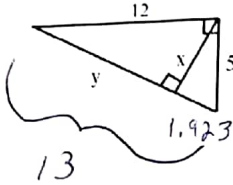


8-1 to 8-4 practice

Solve for x and y.



$$\frac{13}{12} = \frac{12}{y}$$

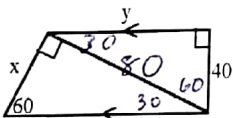
$$13y = 144$$

$$y = 11.08$$

$$\frac{11.08}{x} = \frac{x}{1.923}$$

$$x = 4.6$$

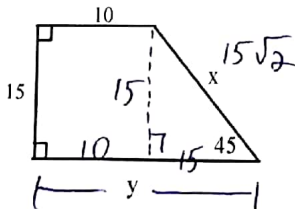
Solve for x and y.



$$y = 40\sqrt{3}$$

$$x = \frac{80\sqrt{3}}{3}$$

Solve for x and y.



$$x = 15\sqrt{2}$$

$$y = 25$$

Tell whether a triangle with the following side lengths is acute, obtuse, or right

16, 33, 28

$3\sqrt{5}, 5\sqrt{2}, 9$

$$16^2 + 28^2 \square 33^2$$

$$16^2 + 28^2 \leq 1089$$

obtuse

$$(3\sqrt{5})^2 + (5\sqrt{2})^2 \square 9^2$$

$$45 + 50 \square 81$$

$$95 > 81$$

acute

Solve the following.

Find a Pythagorean

Triple for which 15 is

the smallest side length.

15, 20, 25

or

15, 112, 113

Find a Pythagorean

Triple for which 11 is

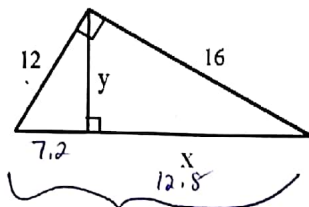
the smallest side length.

11, 60, 61

If a is odd, then $b = a^2/2 - 1/2$ and $c = b + 1$

If a is even, then $b = a^2/4 - 1$, and $c = b + 1$

Solve for x and y.



$$\frac{7.2}{y} = \frac{y}{12.8}$$

20

$$\frac{20}{16} = \frac{16}{x}$$

$$20x = 256$$

$$x = 12.8$$

$$y = 9.6$$

8-1 to 8-4 practice

Solve for x and y.

$$x^2 + y^2 = 39^2 \quad (x+33)^2 + y^2 = 60^2$$

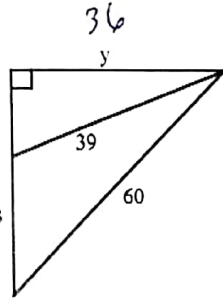
$$y^2 = 39^2 - x^2 \quad y^2 = 60^2 - (x+33)^2$$

$$39^2 - x^2 = 60^2 - (x^2 + 66x + 1089)$$

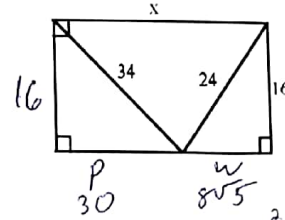
$$1521 = 3600 - 66x - 1089$$

$$66x = 990 \quad \boxed{x = 15}$$

$$\boxed{y = 36}$$



Find the value of x.

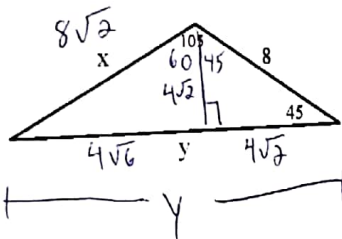


$$w^2 = 24^2 - 16^2$$

$$w^2 = 320$$

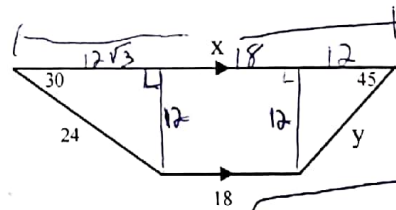
$$w = 8\sqrt{5}$$

$$\boxed{x = 30 + 8\sqrt{5}}$$



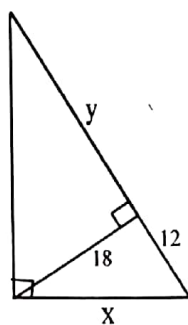
$$\boxed{x = 8\sqrt{2}}$$

$$\boxed{y = 4\sqrt{6} + 4\sqrt{2}}$$



$$y = 12\sqrt{2}$$

$$\boxed{x = 30 + 12\sqrt{3}}$$



$$x^2 = 12^2 + 18^2$$

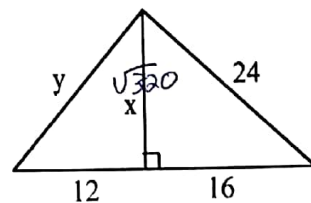
$$\sqrt{x^2} = \sqrt{468}$$

$$\boxed{x = 6\sqrt{13}}$$

$$\frac{y}{18} = \frac{12}{12}$$

$$12y = 18^2$$

$$\boxed{y = 27}$$



$$x^2 + 16^2 = 24^2$$

$$x^2 = 320$$

$$\boxed{x = 8\sqrt{5}}$$

$$(\sqrt{320})^2 + 12^2 = y^2$$

$$320 + 144 = y^2 \rightarrow y = \sqrt{464}$$

$$y = 4\sqrt{29}$$