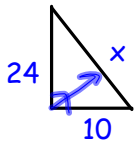


### Pythagorean Triples (Triplets)

The following triples, and any multiple, always make a right triangle.

- 9, 12, 15    
 ★ { 3, 4, 5 } ★    
 30, 40, 50  
5, 12, 13  
 7, 24, 25  
 8, 15, 17  
 20, 21, 29★

Find the missing length of the triangle:



*5, 12, 13 times 2*

$x = 26$

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

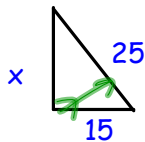
$$24^2 + 10^2 = x^2$$

$$576 + 100 = x^2$$

$$676 = x^2$$

$$\sqrt{676} = \sqrt{x^2}$$

$x = 26$



*3, 4, 5, times 5*

$x = 20$

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

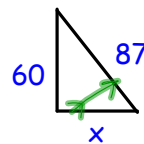
$$x^2 + 15^2 = 25^2$$

$$x^2 + 225 = 625$$

$$x^2 = 400$$

$$\sqrt{x^2} = \sqrt{400}$$

$x = 20$



*20, 21, 29 times 3*

$x = 63$

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

$$x^2 + 60^2 = 87^2$$

$$x^2 + 3600 = 7569$$

$$x^2 = 3969$$

$$\sqrt{x^2} = \sqrt{3969}$$

$x = 63$

Classwork: WB p. 129

HW: WB p. 130

$$330 \div \frac{20}{100}$$

$$330 \cdot \frac{10}{2}$$

$$330 \cdot 5$$

$$\begin{array}{r} 1330 \\ \times 5 \\ \hline 1650 \end{array}$$

$$\begin{array}{r} 364 \\ \times 8 \\ \hline 512 \end{array}$$

$$\begin{array}{r} 20 \overline{) 33000} \\ \underline{-2000} \phantom{0} \\ 1300 \phantom{0} \\ \underline{-1200} \phantom{0} \\ 1000 \\ \underline{-1000} \\ 00 \end{array}$$

$$\frac{1}{8} - \frac{5}{8} = \frac{-4}{8} = -\frac{1}{2}$$

$$\begin{array}{r} 3.5 \\ 50 \overline{) 1750} \\ \underline{-1500} \\ 250 \end{array}$$

6 12 18 24 30 36 42 48  
8 16 24 32 40 48 24  
40

$$\begin{array}{r} 1152 \\ 7 \overline{) 779} \\ \underline{-700} \\ 79 \\ \underline{-70} \\ 09 \\ \underline{-14} \\ 2 \end{array}$$

abcdabcdabcd...

What is the 143 letter?

$$\begin{array}{r} 4 \overline{) 143} \\ \underline{16} \phantom{3} \\ 23 \\ \underline{20} \\ 3 \end{array}$$