

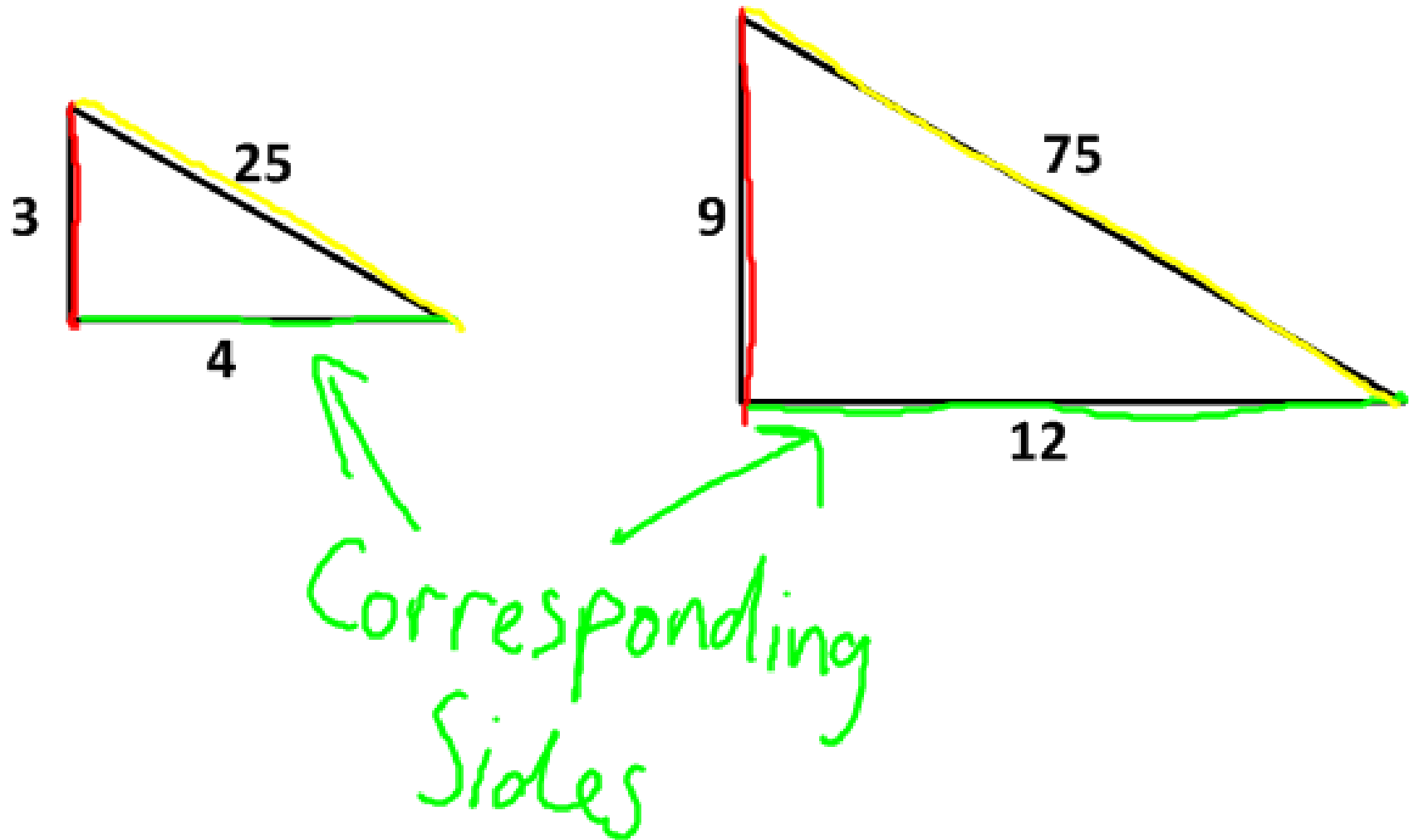
Section 8-3: Similar Figures

Today's Objectives:

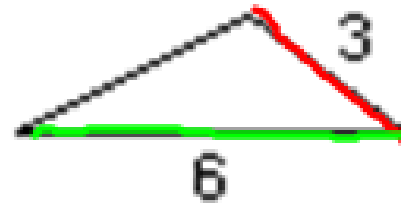
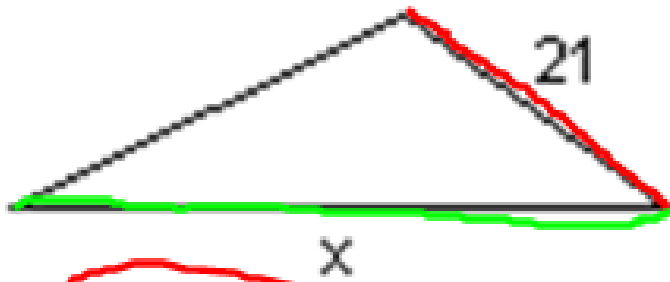
- 1. Identify similar figures.**
- 2. Set up and solve proportions involving similar figures.**

Similar Figures:

Same shape, different size



Ex. 1:



$$\begin{array}{r} 21 \\ \times 3 \\ \hline 63 \\ 630 \\ \hline 1260 \end{array}$$

~~126 = 3~~

~~3~~

42 x

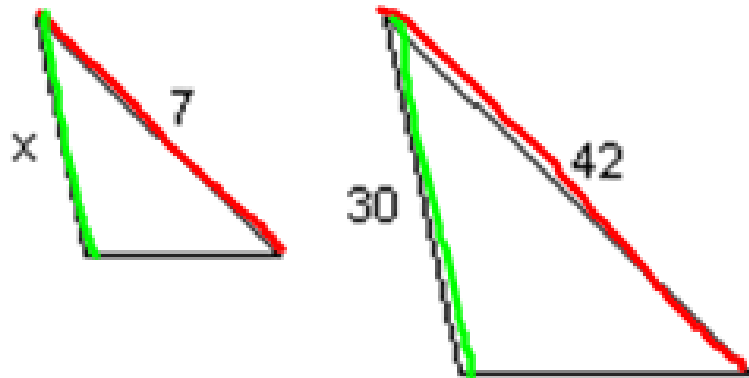
$$\begin{array}{r} 21 \\ \times 3 \\ \hline 63 \\ 630 \\ \hline 1260 \end{array}$$

~~126 = 3~~

Other ways to write it:

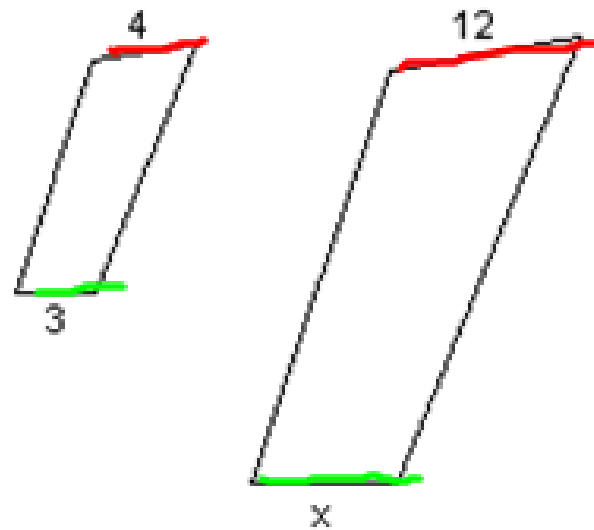
$$\begin{array}{r} 21 \\ \times 3 \\ \hline 63 \\ 630 \\ \hline 1260 \end{array}$$

Ex. 2:



$$\frac{42}{7} = \frac{30}{x}$$
$$\frac{42}{7}x = \frac{30}{1}$$
$$6x = 30$$
$$x = 5$$

Ex. 3:

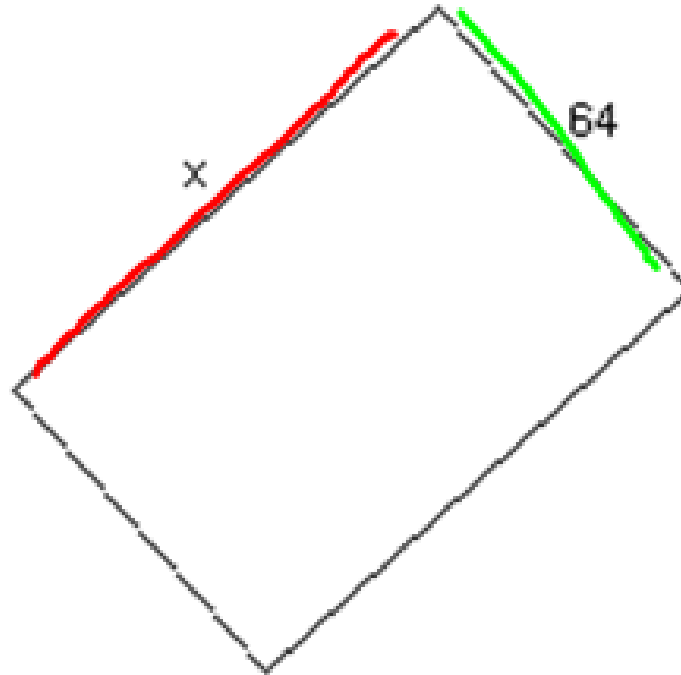


$$\frac{4}{3} = \frac{12}{x}$$
$$4x = 36$$
$$x = 9$$

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$$4x = 36$$
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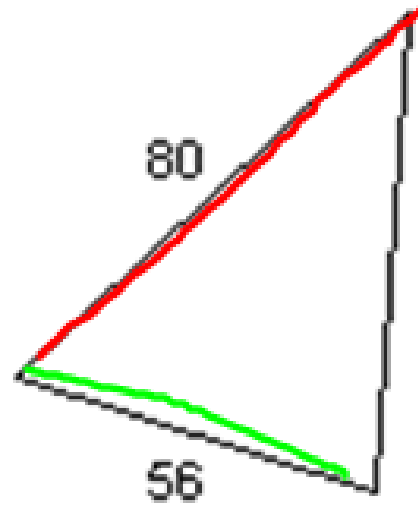
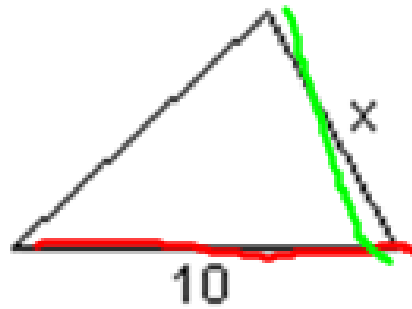
Ex. 4:



$$\begin{array}{r} 12 \times 9 \\ \hline 768 \end{array} = \frac{768}{9}$$

$$x = 85.3$$

Ex. 5:

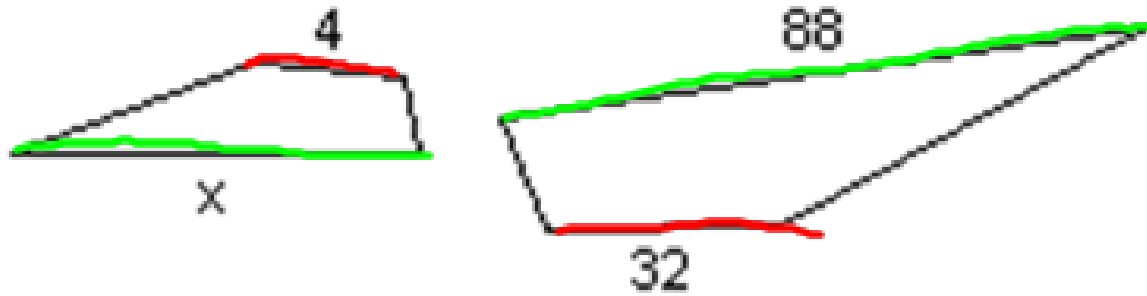


$$\frac{10}{80} \sim \frac{x}{56}$$

$$\frac{560}{80} = \frac{80x}{80}$$

$$7 = x$$

Ex. 6:



$$\frac{x}{88} = \frac{4}{32}$$
$$32x = 352$$
$$x = 11$$

The final result $x = 11$ is circled.