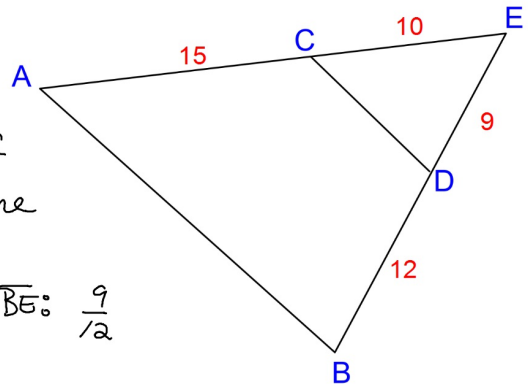
Is $\overline{AB}$ parallel to $\overline{CD}$?



only if the parts of $\overline{AE}$ & $\overline{BE}$ are proportional.

$\overline{AE}$: $\frac{10}{15}$ $= 0.67$

$\overline{BE}$: $\frac{9}{12}$ $= 0.75$

Since $\overline{CE}$ doesn't divide $\overline{AE}$ & $\overline{BE}$ proportionally it isn't parallel to $\overline{AB}$.

The scale on a drawing of a spider is 19:4.

Round answers to the nearest tenth.

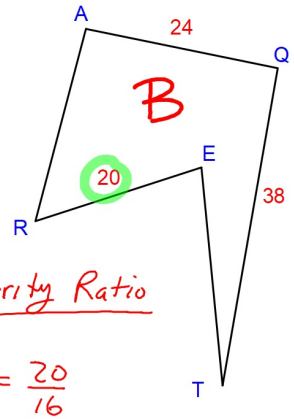
1. Find the length of the spider in the drawing if it is actually 3cm long.

$\frac{19}{4}\ \frac{\text{draw}}{\text{actual}} = \frac{X}{3}$ $\quad X = 14.25$ cm

2. If the spiders leg is 5cm long in the drawing how long is an actual spiders leg?

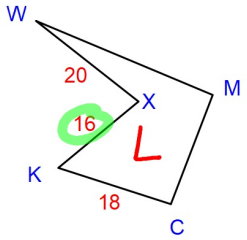
$\frac{19}{4}\ \frac{\text{draw}}{\text{actual}} = \frac{5}{X}$ $\quad X = \frac{20}{19} \approx 1.05$ cm

These figures are similar.



Similarity Ratio

$\frac{B}{L} = \frac{20}{16}$



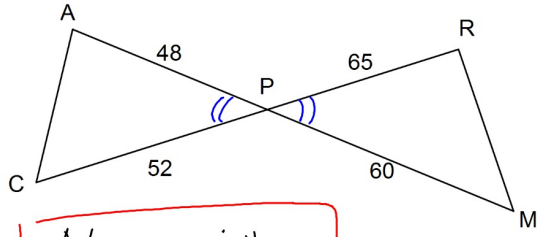
Find each to the nearest hundredth.

AR = 22.5 $\quad \frac{20}{16} = \frac{AR}{18}$

WM = 30.4 $\quad \frac{20}{16} = \frac{38}{WM}$

MC = 19.2 $\quad \frac{20}{16} = \frac{24}{MC}$

Are these triangles similar? If yes, state why and write a Similarity Statement. Figure is not drawn to scale.



$\triangle$'s are Similar by SAS-Sim Thm

TRY using SAS-Sim Thm:

- Vertical $\angle$s are $\cong$
- Corresp sides:

Corresp sides are proportional

$\frac{48}{60} = 0.8$

$\frac{52}{65} = 0.8$

Simplify each square root.

1. $\sqrt{20} = \sqrt{4 \cdot 5}$
$= \sqrt{4} \cdot \sqrt{5}$
$= \boxed{2\sqrt{5}}$

2. $\sqrt{96} = \sqrt{16 \cdot 6}$
$= \sqrt{16} \cdot \sqrt{6}$
$= \boxed{4\sqrt{6}}$

3. $\sqrt{150}$
$= \sqrt{25 \cdot 6}$
$= \sqrt{25} \cdot \sqrt{6}$
$= \boxed{5\sqrt{6}}$

4. $\sqrt{63}$
$= \sqrt{9 \cdot 7}$
$= \sqrt{9} \cdot \sqrt{7}$
$= \boxed{3\sqrt{7}}$

Simplify each square root.

5. $\sqrt{48}$
$= \sqrt{16 \cdot 3}$
$= \sqrt{16} \cdot \sqrt{3}$
$= \boxed{4\sqrt{3}}$

6. $\sqrt{147}$
$= \sqrt{49 \cdot 3}$
$= \sqrt{49} \cdot \sqrt{3}$
$= \boxed{7\sqrt{3}}$

7. $\sqrt{192}$
$= \sqrt{64 \cdot 3}$
$= \sqrt{64} \cdot \sqrt{3}$
$= \boxed{8\sqrt{3}}$

8. $\sqrt{252}$
$= \sqrt{36 \cdot 7}$
$= \sqrt{36} \cdot \sqrt{7}$
$= \boxed{6\sqrt{7}}$