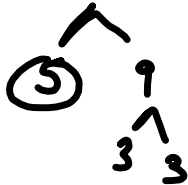


## Warm Up

Simplify the following radicals:

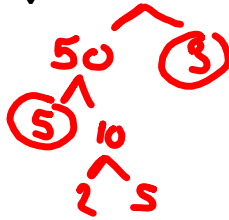
$$\sqrt{45}$$



$$\sqrt{3 \cdot 3 \cdot 5}$$

$$3\sqrt{5}$$

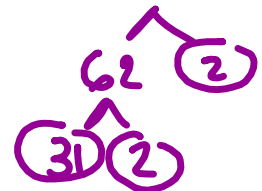
$$\sqrt{150}$$



$$\sqrt{2 \cdot 3 \cdot 5 \cdot 5}$$

$$5\sqrt{6}$$

$$\sqrt{124}$$



$$\sqrt{2 \cdot 2 \cdot 31}$$

$$2\sqrt{31}$$

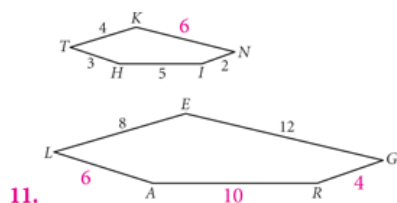
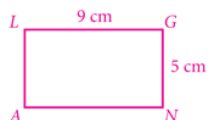
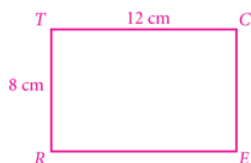
$$4 \sqrt{2 \cdot 2 \cdot 2 \cdot 3 \cdot 3 \cdot 5}$$

↓

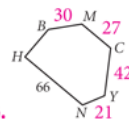
$$4 \cdot 2 \cdot 3 \sqrt{2 \cdot 5}$$
$$24 \sqrt{10}$$

# Homework Check:

10. No, they are not similar because the side ratios are not equal.



12. No; the corresponding angles are congruent, but the corresponding sides are not proportional.



13.  
14. Yes; the corresponding angles are congruent, and the corresponding sides are proportional.

15.  $x = 6$  cm,  $y = 3.5$  cm

16.  $z = 10\frac{2}{3}$  cm

17. Yes, the corresponding angles are congruent. Yes, the corresponding sides are proportional.

Yes,  $\triangle AED \sim \triangle ABC$ .

18.  $m = \frac{9}{2}$  cm = 4.5 cm;  
 $n = \frac{9}{4}$  cm = 2.25 cm

## 7.2 - Similar Triangles

## Lesson 7.2 Computer Investigation

**AA Similarity conjecture:** If two corresponding angles are congruent then the triangles are similar.

**SSS Similarity Conjecture:** If three sets of corresponding sides are proportional, then the triangles are similar

**SAS Similarity Conjecture:** If two sides of one triangle are proportional to two sides of another triangle and the included angles are congruent, then the triangles are similar

