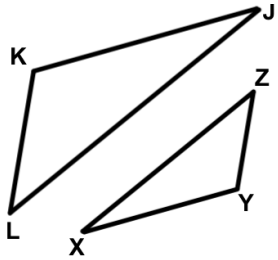
Geometry
Unit 3: Similar Figures and Dilation
3.3a Day 1 - Scale Factor, Unknown Lengths

Mathematician: _____
Period:_____

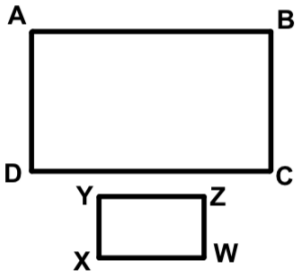
LEVEL: EMERGING

1) Given the similar triangles JKL and XYZ, identify the side that is proportional to $\overline{JK}$.



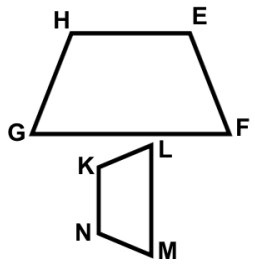
Answer: _____

2) Given the similar rectangles ABCD and WXYZ, identify the side that is proportional to $\overline{ZW}$.



Answer: _____

3) Given the similar trapezoids EFGH and KLMN, identify the side that is proportional to $\overline{ML}$.

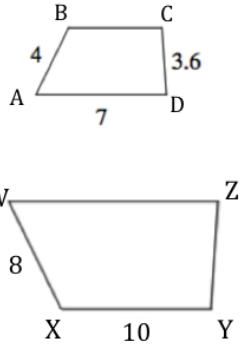


Answer: _____

LEVEL: PROFICIENT

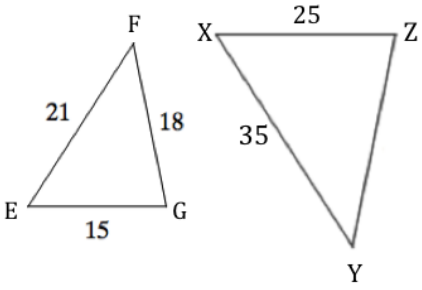
Directions: Given the similar shapes, find the indicated length.

4) $ABCD \sim WXYZ$



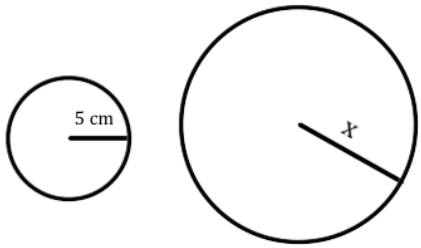
$\overline{WZ} =$ _____

5) $EFG \sim XYZ$



$\overline{YZ} =$ _____

6) Linear scale factor of circles is $\frac{5}{3}$.

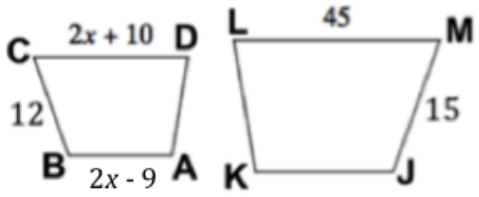


x = _____

LEVEL: MASTERY

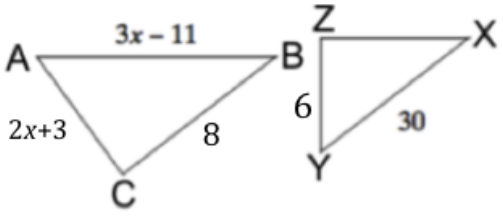
Directions: Given the similar shapes, find the indicated length.

7) $ABCD \sim JKLM$



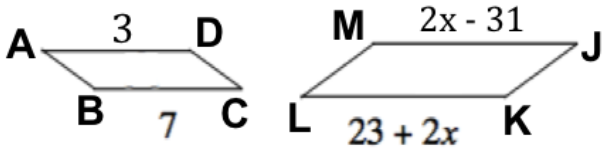
$\overline{AB} =$ _____

8) $ABC \sim XYZ$



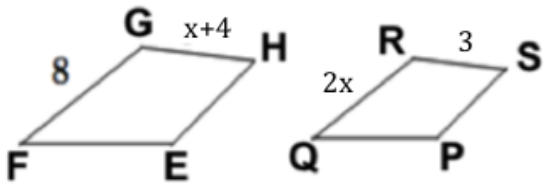
$\overline{AC} =$ _____

9) $ABCD \sim JKLM$



$\overline{LK} =$ _____

10) $EFGH \sim PQRS$



$\overline{GH} =$ _____

11) A model house is 12 cm wide. If it was built with a scale of 3 cm: 4m, then how wide is the real house?

Answer: _____

12) A Ferris wheel casts a 20 meter-long shadow. A man 1.8 meters tall casts a 2.4-meter shadow. How tall is the Ferris wheel?

Answer: _____

13) A map has a scale of 3 cm: 18 km. If two cities are 54 km apart, then they are how far apart on the map?

Answer: _____

14) A 42.9 ft flagpole casts a 253.1 ft long shadow. About how long is the shadow of a 6.2 ft tall woman?

Answer: _____