

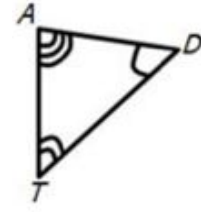
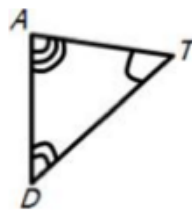
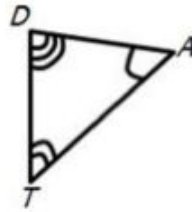
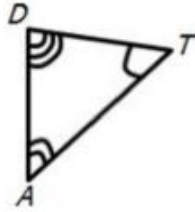
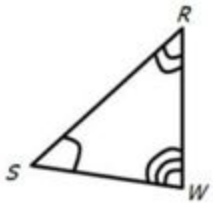
Similar Figures

Week 1 (4/20 - 4/24):

Topic: Identify corresponding sides and corresponding congruent angles of similar quadrilaterals and triangles.

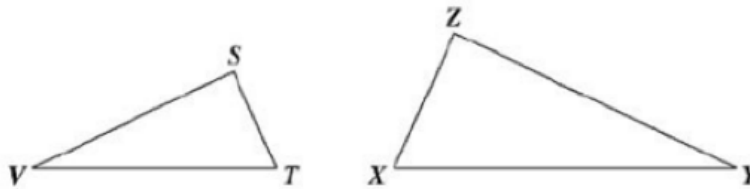
1. Look at $\triangle SRW$.

If $\triangle SRW \sim \triangle TDA$, circle the image that correctly labels $\triangle TDA$?



Correct answer

2. Triangle STV and triangle ZXY are similar. Highlight ALL pairs of segments that are corresponding sides of these triangles.



Correct answer

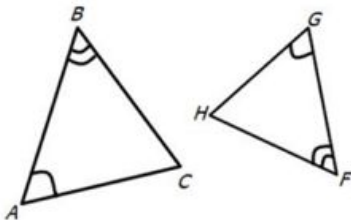
Correct answer

Correct answer

\overline{ST} and \overline{ZX}	\overline{TV} and \overline{XY}	\overline{VT} and \overline{ZX}	\overline{TV} and \overline{XZ}	\overline{XY} and \overline{SV}	\overline{SV} and \overline{ZY}
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Topic: Given two similar quadrilaterals or triangles, write similarity statements using symbols.

3.

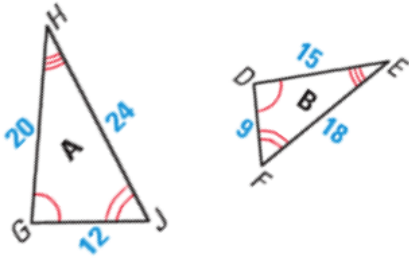


$$\triangle BAC \sim \triangle \underline{FGH}$$

4.

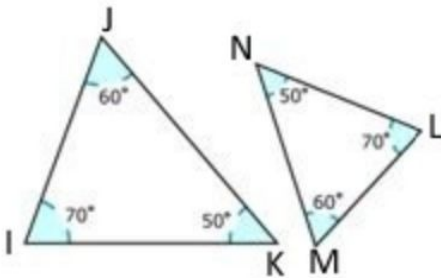
If $\triangle ABC$ is similar to $\triangle DFE$, which angle of $\triangle DFE$ corresponds to $\angle B$? Angle F

5. Complete the table using the pair of similar figures.



Corresponding Sides	Ratio	Scale Factor
$\overline{GH} \sim \underline{DE}$	20/15	4/3
$\overline{FD} \sim \underline{JG}$	9/12	3/4
$\overline{JH} \sim \underline{FE}$	24/18	4/3

6. Identify the corresponding angles and their measurement using the similar figures below.

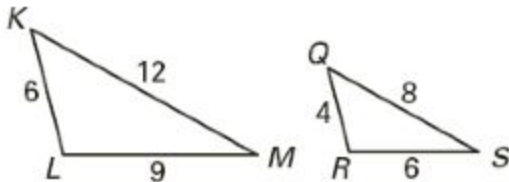


Corresponding Angles	Angle Measurement
$\angle J = \underline{\text{Angle M}}$	60 degrees
$\underline{\text{Angle I}} = \angle L$	70 degrees
$\angle K = \underline{\text{Angle N}}$	50 degrees

Topic: Write proportions to express the relationships between the lengths of corresponding sides of similar quadrilaterals and triangles.

Sketch a double number line to include the ratios of all corresponding sides. Lastly, calculate the scale factor for each pair of similar figures.

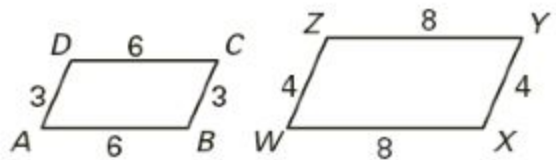
7.



$6/4 = 3/2$
 $9/6 = 3/2$
 $12/8 = 3/2$

Scale Factor: 3/2

8.



$3/4$
 $6/8 = 3/4$

Scale Factor: 3/4

9. The following is true about similar figures DOT and ANG.

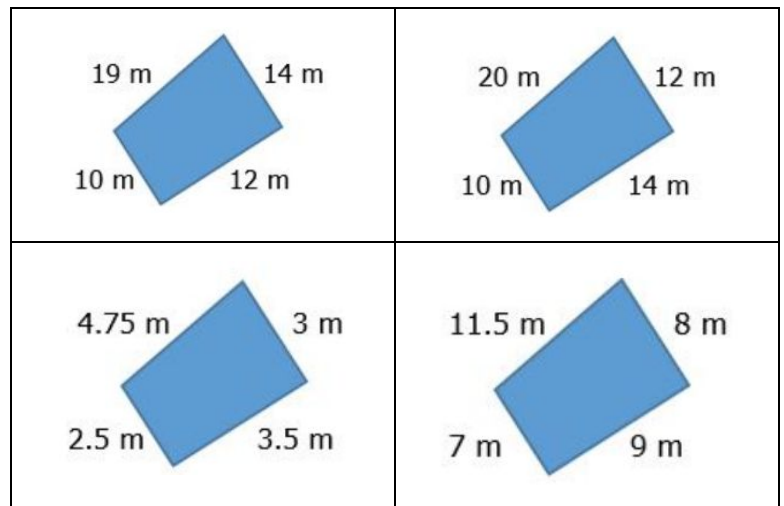
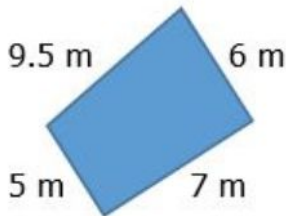
$$\frac{DO}{AN} = \frac{OT}{NG} = \frac{DT}{AG} = \frac{3}{1}$$

Which could be the length of \overline{DT} and \overline{AG} ?

- A) DT = 6 and AG = 2 $6/2 = 3/1$ **Correct answer**
- B) DT = 9 and AG = 6 $9/6 = 3/2$
- C) DT = 6 and AG = 4 $6/4 = 3/2$
- D) DT = 9 and AG = 4 $9/4$

10.

Look at the quadrilateral.
Which shape is similar?



$9.5/19 = 1/2$

$9.5/20$ (simplest form)

$5/10 = 1/2$

$5/10 = 1/2$

$7/12$ (simplest form)

$7/14 = 1/2$

$6/14 = 3/7$

$6/12 = 1/2$

$9.5/4.75 = 2/1$

$9.5/11.5$ (simplest form)

Correct answer

$5/2.5 = 2/1$

$5/7$ (simplest form)

$7/3.5 = 2/1$

$7/9$ (simplest form)

$6/3 = 2/1$

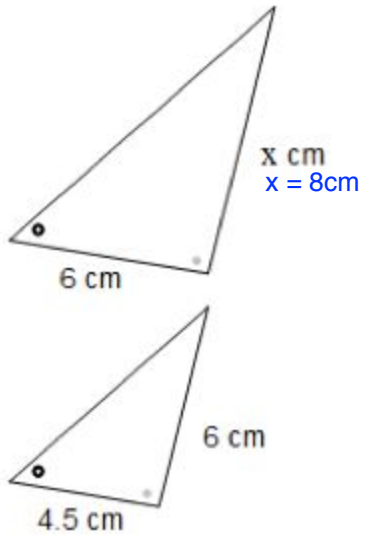
$6/8 = 3/4$

Week 2 (4/27 - 5/1):

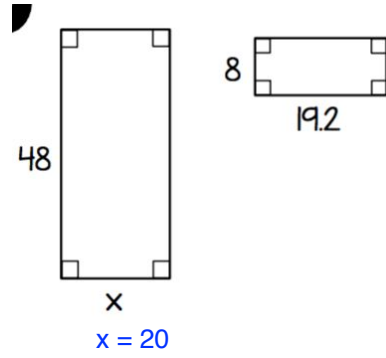
Topic: Solve a proportion to determine a missing side length of similar quadrilaterals or triangles.

Solve for the missing side.

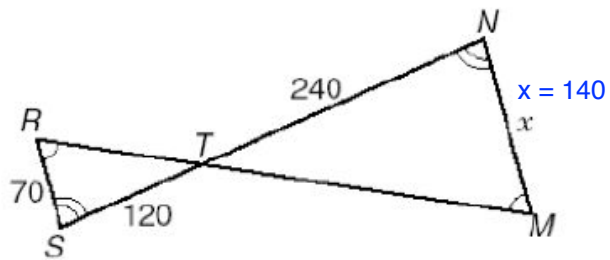
1.



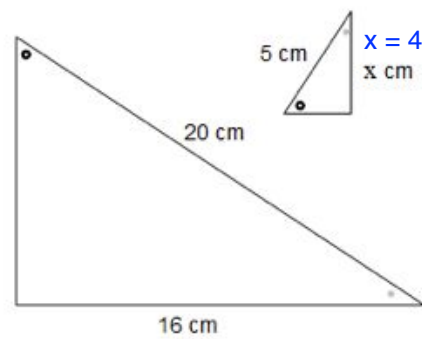
2.



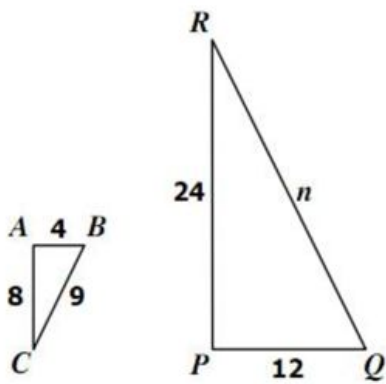
3.



4.



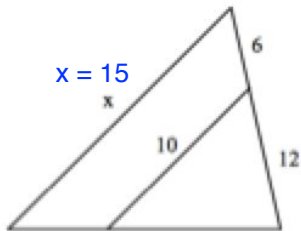
5. Triangle ABC is similar to triangle PQR. Which proportion can be used to find n ?



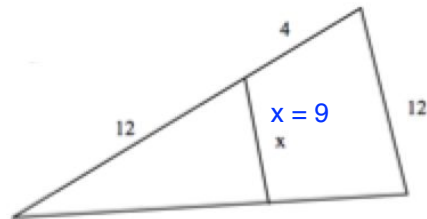
<p>A) $\frac{8}{12} = \frac{n}{9}$</p>	<p>C) $\frac{4}{9} = \frac{12}{n}$ Correct answer</p>
<p>B) $\frac{8}{9} = \frac{n}{12}$</p>	<p>D) $\frac{4}{8} = \frac{12}{n}$</p>

Directions: Solve for the missing side. HINT: Be sure to redraw the overlapping triangles separately.

6.

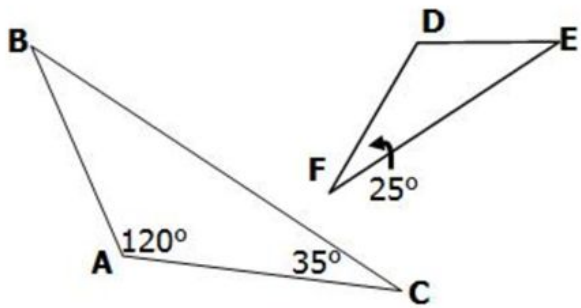


7.



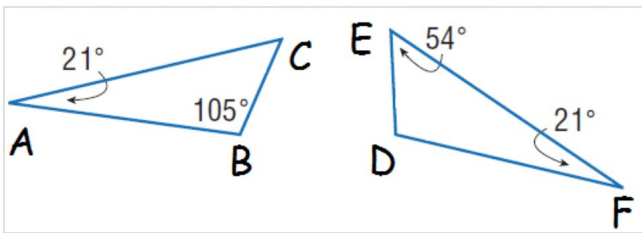
Topic: Given angle measures in a quadrilateral or triangle, determine unknown angle measures in a similar quadrilateral or triangle.

8. If the two triangles shown are similar, which statement is true?



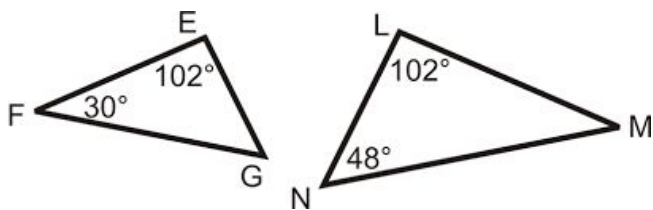
- A) $\triangle ABC \sim \triangle DFE$ **Correct Answer**
- B) $\triangle ABC \sim \triangle DEF$
- C) $\triangle DFE \sim \triangle ACB$
- D) $\triangle DEF \sim \triangle CBA$

9.



Corresponding Angles	Angle Measurement
$\angle A = \underline{\text{Angle F}}$	21 degrees
$\underline{\text{Angle B}} = \angle D$	105 degrees
$\angle C = \underline{\text{Angle E}}$	54 degrees

10.

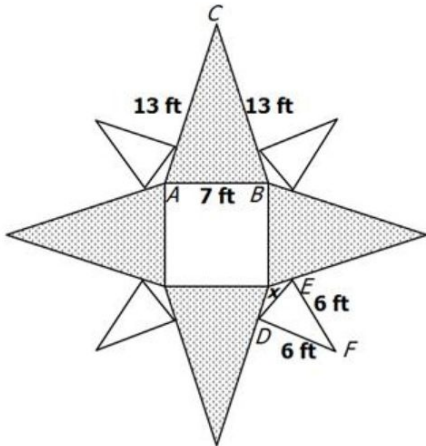


Corresponding Angles	Angle Measurement
$\angle L = \underline{\text{Angle E}}$	102 degrees
$\underline{\text{Angle M}} = \angle F$	30 degrees
$\angle N = \underline{\text{Angle G}}$	48 degrees

Challenges:

Choose TWO of the challenges to complete!!

Option 1: William is building a decorative star with similar wooden triangles. Triangle ABC is similar to triangle EDF. Which proportion can be used to find x ?



$\frac{7 \text{ ft}}{x} = \frac{13 \text{ ft}}{6 \text{ ft}}$ <p>Correct answer</p>	$\frac{7 \text{ ft}}{x} = \frac{6 \text{ ft}}{13 \text{ ft}}$
$\frac{x}{7 \text{ ft}} = \frac{13 \text{ ft}}{6 \text{ ft}}$	$\frac{7 \text{ ft}}{13 \text{ ft}} = \frac{6 \text{ ft}}{x}$

Option 2: Create your own design using similar triangles and/or quadrilaterals. Be sure to include side measurements on your design.

Answers will vary.

Option 3: **Identify** and **describe** how similar figures are used in a career today. *Your response **must be at least 5 sentences long.***

Answers will vary.