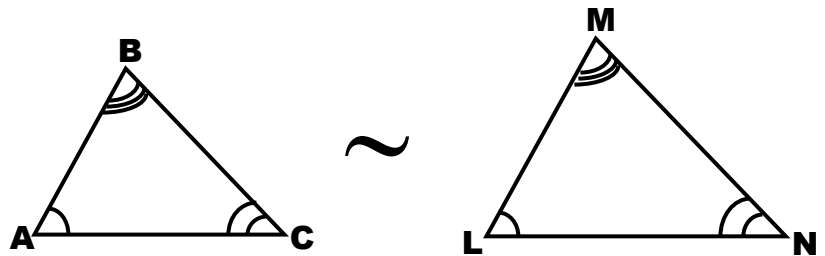


NAME \_\_\_\_\_ DATE \_\_\_\_\_ PER. \_\_\_\_\_

**SIMILAR POLYGONS**

Use the figures below to answer the questions that follow.

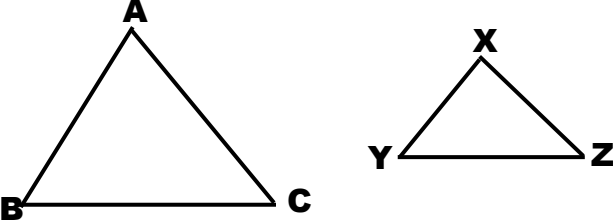
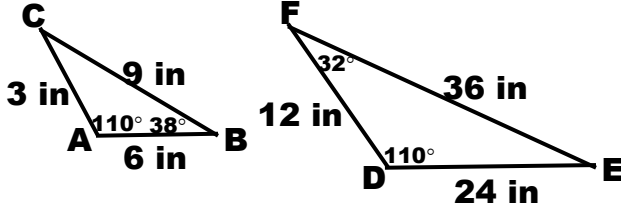
1. _____	$\angle A \cong ?$
2. _____	$\overline{AB} : ?$
3. _____	$\overline{CA} : ?$
4. _____	$\angle M \cong ?$
5. _____	$\angle C \cong ?$
6. _____	$\overline{MN} : ?$



7. _____	Name the side included between $\angle A$ and $\angle B$ .
8. _____	Name the angle included between $\overline{MN}$ and $\overline{LM}$ .
9. _____	Name the angle included between $\overline{AC}$ and $\overline{BC}$ .
10. _____	Name the side included between $\angle L$ and $\angle N$ .

**If Quad LMNO is similar to Quad WXYZ, name the following.**

11. _____	$\angle L \cong ?$
12. _____	$\overline{MN} : ?$
13. _____	$\angle N \cong ?$
14. _____	$\overline{ZW} : ?$
15. _____	What angle is included between $\overline{WX}$ and $\overline{XY}$ ?
16. _____	What side is included between $\angle N$ and $\angle O$ ?

<p>17. a) <math>\angle A \cong</math> _____</p> <p>b) <math>\angle B \cong</math> _____</p> <p>c) <math>\angle C \cong</math> _____</p> <p>d) <math>\frac{AB}{XZ} = \frac{BC}{YZ}</math></p>	<p>ABC ~ XYZ below. Use these figures to answer the questions.</p> 
<p>18. YES or NO</p> <p>Explain:</p>	<p>Are the two triangles shown below similar?</p> 
<p>19. _____</p>	<p>What is the common ratio of <math>\triangle ABC</math> to <math>\triangle DEF</math> in problem #18?</p>
<p>20. _____</p>	<p>What is the ratio of the perimeter of <math>\triangle ABC</math> to <math>\triangle DEF</math>?</p>
<p>21. _____</p>	$\frac{a}{45} = \frac{3}{15}$
<p>22. _____</p>	$\frac{w+2}{5} = \frac{7}{5}$

23. \_\_\_\_\_

$$\frac{5+y}{y-3} = \frac{14}{10}$$

24. \_\_\_\_\_

$$\frac{m+8}{-3} = \frac{17-m}{-2}$$

25. \_\_\_\_\_

A recipe for  $2\frac{1}{2}$  dozen whole-wheat muffins requires 600 g of flour. How many muffins can be made with 900 g of flour?

26. \_\_\_\_\_

A model airplane is made to the scale 1 inch to 24 inches. If the wing of the actual plane is 18 feet long, how long will the model wing be?

27. _____	When rating movies in 1994, critic Gene Siskel gave four thumbs up to every five thumbs up given by his partner Roger Ebert. If Mr. Siskel gave thumbs up to 68 movies, how many movies did Mr. Ebert rate favorably?
28. _____	Mandy plays shortstop for her softball team. Last year she caught 65% of the infield fly balls. During the first four weeks of the season, there were 73 infield fly balls. About how many did Mandy catch?
29. _____	Given that $\frac{a}{b} = \frac{5}{7}$ , complete the following equation:  $\frac{a}{5} = ?$
30. _____	If $\frac{a}{b}$ is proportional to $\frac{c}{d}$ , which of the following is <b><u>not</u></b> necessarily true?  A. $ad = bc$ B. $\frac{a}{c} = \frac{b}{d}$ C. $ab = cd$ D. Not Here