

Unit 3 TEST Review

Name: _____

Classify the following angles as *alternate interior/exterior angles*, *same-side interior angles*, or *corresponding angles*. (Use the figure to the right)

1.) $\angle 1$ and $\angle 4$

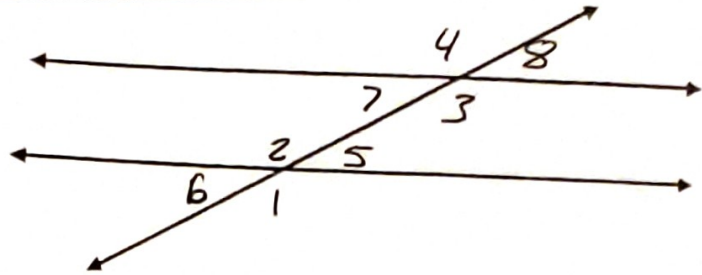
2.) $\angle 4$ and $\angle 2$

3.) $\angle 6$ and $\angle 7$

4.) $\angle 3$ and $\angle 2$

5.) $\angle 3$ and $\angle 7$

6.) $\angle 5$ and $\angle 8$



Find the missing angle(s), and then justify your answer by stating whether you used the *Corresponding Angles Postulate*, *Alternate Interior/Exterior Angles Theorem*, or *Same-Side Interior Angles Theorem*.

7.)

$m \angle 1 =$ _____
 $m \angle 2 =$ _____

8.)

$m \angle 1 =$ _____
 $m \angle 2 =$ _____

9.)

$x =$ _____, $11x-30 =$ _____
 $3x-28 =$ _____

Which lines or segments are parallel? Justify your answer by using the *Converse of the Corresponding Angles Postulate*, *Converse of the Alternate Interior Angles Theorem*, or *Converse of the Same-Side Interior Angles Theorem*.

10.)

$\angle A$ _____ $\parallel$ _____
 $\angle C$ _____ $\parallel$ _____

11.)

$\angle A$ _____ $\parallel$ _____
 $\angle C$ _____ $\parallel$ _____

Find the value of x for which $l \parallel m$.

12.)

$x =$ _____
 $3x-20 =$ _____
 $2x+60 =$ _____

13.)

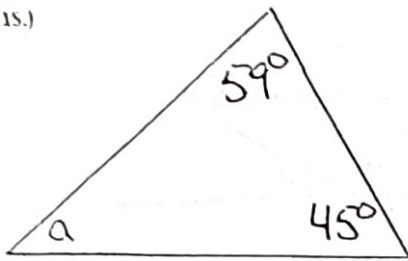
$x =$ _____
 $4x+10 =$ _____
 $2x+20 =$ _____

14.)

$x =$ _____
 $7x =$ _____
 $13x =$ _____

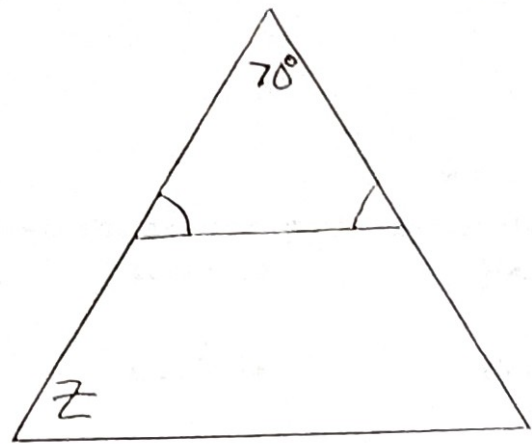
Find the missing angles.

15.)



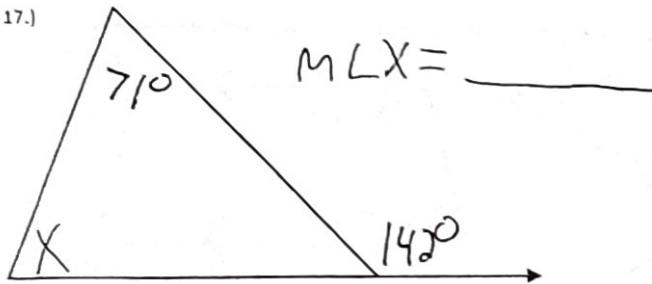
$$m\angle a = \underline{\hspace{2cm}}$$

16.)



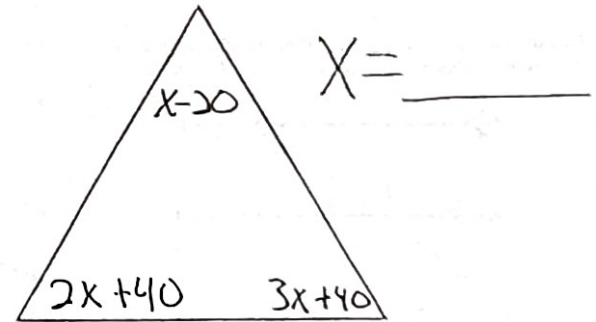
$$m\angle z = \underline{\hspace{2cm}}$$

17.)



$$m\angle x = \underline{\hspace{2cm}}$$

18.)



$$x = \underline{\hspace{2cm}}$$

Find the sum of the measures of interior angles. Find the measure of interior and exterior angles if the polygon was REGULAR.

19.) Nonagon

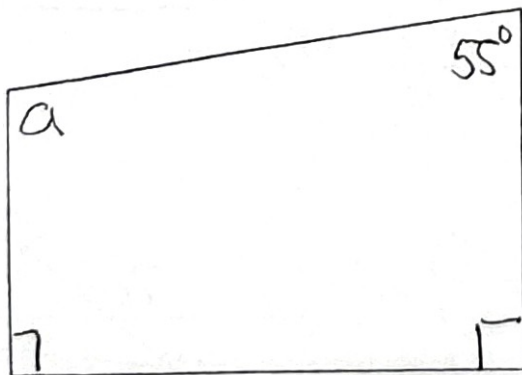
20.) Dodecagon

21.) 50-GON

22.) 100-GON

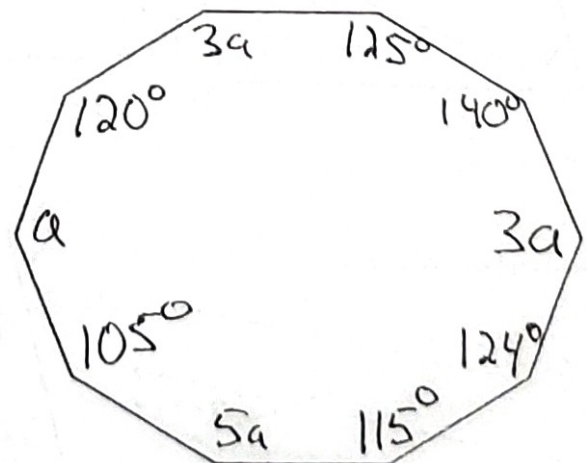
Find the missing ANGLE MEASURES.

23.)



$$a = \underline{\hspace{2cm}}$$

24.)



$$a = \underline{\hspace{2cm}}$$