

Name: _____

Unit 1- Shapes and Designs
Study Guide

1.) Estimate the degrees for $\angle ABC$ and $\angle DEF$.



2.) Polygons with 4 sides are called *quadrilaterals*.
Explain why the end shape does not belong with the other 3.



Reason: _____

3.) a. What are the names of the shapes? _____

b. What property (characteristic) do they share?



4.) Circle the shape that is **NOT** a polygon. A.



5.) a. A degree is a measure of _____

b. Draw what 1° would look like.

6.) Circle the regular polygon.



7.) Sketch an angle that is approximately (about) 150° .

8.) a. Is the given diagonal a line of symmetry? Why or why not?

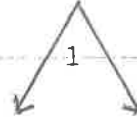
b. Does the figure have any other lines of symmetry? If so, where are they?



9.) A triangle has sides of 5 and 3. The measurement of the longest side is missing.

•Ted says that one possibility for the unknown side length is 9.

•Do you agree with Ted? Why or why not?



10) Estimate the measure of this angle. _____

11.) a. Suppose $\angle ABC$ is 40° , what is the measure of it's ~~complementary~~ **complementary** angle ($\angle CBD$)?

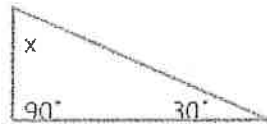
$x =$ _____

b. What would the measure of it's ~~supplementary~~ **supplementary** angle?

$y =$ _____



12.) Find the degrees to the missing angle of the triangle. (HINT: Remember a all angles of a triangle will add up to 180°).



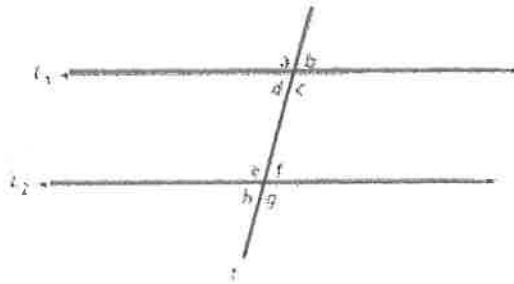
$\angle x =$ _____

13) What is the angle sum for a regular decagon ? (10 sides) _____

What is the measure of each interior angle? _____

What is the measure of each exterior angle? _____

14) Fill in the table to the right.



Explain or show how you found $\angle b$. _____

Explain or show how you found $\angle c$. _____

Angle	Measurement
$\angle a$	105
$\angle b$	
$\angle c$	
$\angle d$	
$\angle e$	
$\angle f$	
$\angle g$	
$\angle h$	

15) Draw a Triangle with side $AB=5$ cm, Side $BC=4$ cm, and Angle ABC measuring 40° .