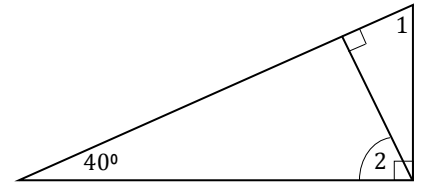


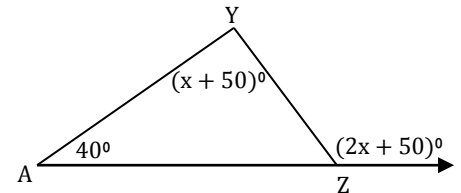
**Ch 7 "Polygons" Review****Pp 320 – 322 (6– 16; 18 – 21)**

- 6) The measures of the angles of a quadrilateral are 40, 70, and 130. What is the measure of the fourth angle?
- 7) The measures of the angles of a triangle are in the ratio 1 : 2 : 3. Find half the measure of the largest angle.

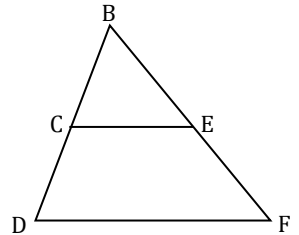
- 8) Given: Diagram as marked  
Find:  $m\angle 1$  and  $m\angle 2$



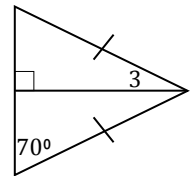
- 9) Given: Diagram as marked  
Find:  $m\angle YZA$



- 10) Given: C is the midpoint of  $\overline{BD}$ .  
E is the midpoint of  $\overline{BF}$ .  
 $DF = 12$ ,  
 $m\angle D = 80$ ,  $m\angle B = 60$   
Find: CE,  $m\angle BCE$ , and  $m\angle BEC$



- 11) Find  $m\angle 3$  in the diagram as marked.



- 12) If the measure of an exterior angle of a regular polygon is 15, how many sides does the polygon have?

- 13) If a polygon has 33 sides, what is:

- a) The sum of the measures of the angles of the polygon?
- b) The sum of the measures of the exterior angles, one per vertex, of the polygon?

**Ch 7 Review****Pp 320 – 322 (14 – 16; 18 – 21)**

14) The sum of the measures of the angles of a polygon is 1620. Find the number of sides of the polygon.

15) Find the number of diagonals that can be drawn in a pentadecagon.

16) The measure of an exterior angle of an equiangular polygon is twice that of an interior angle. What is the name of the polygon?

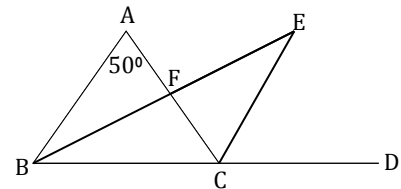
18) The measure of one of the angles of a right triangle is five times the measure of another angle of the triangle. What are the possible values of the measure of the second largest angle?

19) Given:  $\triangle ABC$  is isosceles, with base  $BC$ .

$\overrightarrow{BE}$  bisects  $\angle ABC$ .

$\overrightarrow{CE}$  bisects  $\angle FCD$ .

$\angle A = 50^\circ$



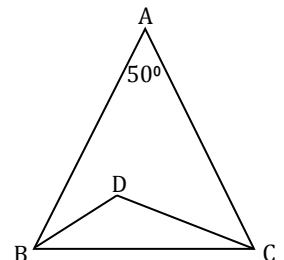
Find: a)  $m\angle ABF$

b)  $m\angle BCE$

c)  $m\angle E$

20) Given:  $\overline{AB} \cong \overline{AC}$ ,  
 $\angle DBC \cong \angle DCA$ ,  
 $m\angle A = 50$

Find:  $m\angle BDC$



21) Tell whether each statement is true Always, Sometimes, or Never (A, S, or N).

\_\_\_\_\_ a) An equiangular triangle is isosceles.

\_\_\_\_\_ b) The number of diagonals in a polygon is the same as the number of sides.

\_\_\_\_\_ c) An exterior angle of a triangle is larger in measure than any angle in the triangle.

\_\_\_\_\_ d) One of the base angles of an isosceles triangle has a measure greater than that of one of the exterior angles of the triangle.