

Geometry Review Chapter 7

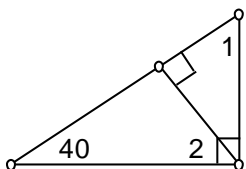
- 1) The measure of three of the angles of a quadrilateral are 40° , 70° , and 130° . What is the measure of the 4th angle?
- 2) What is the sum of the measures of the exterior angles, one per vertex, of a dodecagon?
- 3) If the measure of an exterior angle of a regular polygon is 15° , how many sides does the polygon have?
- 4) If a polygon has 33 sides, what is
 - a) The sum of the measures of the angles of the polygon?
 - b) The number of diagonals of the polygon?
 - c) The sum of the measures of the exterior angles, one per vertex, of the polygon?
- 5) The sum of the measures of the angles of a polygon is 1620° . How many sides does the polygon have?
- 6) The number of diagonals in a polygon is 44. How many sides does the polygon have?
- 7) What is the measure of each angle in a regular octagon?
- 8) What is the measure of each exterior angle in a regular dodecagon?
- 9) If an interior angle of a regular polygon is 108° , what is the measure of the exterior angle?

10) If each exterior angle of a regular polygon is 60° , how many sides does the polygon have?

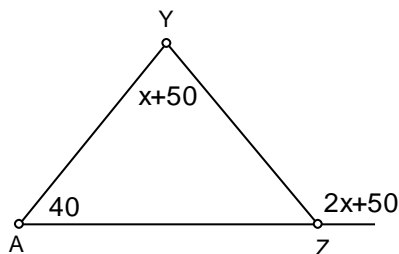
11) If each interior angle of a regular polygon is 140° , how many sides does the polygon have?

12) An exterior angle of a regular polygon is $\frac{1}{3}$ the measure of an interior angle of the polygon. How many sides does the polygon have? What is the name of this polygon?

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

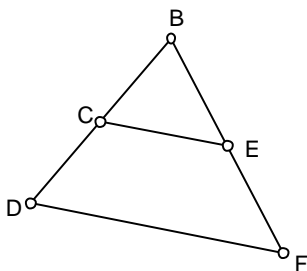


14) Given: Diagram
Find: $m\angle YZA$



15) Given: C is the midpoint of \overline{BD}
E is the midpoint of \overline{BF}
 $DF = 12$
 $m\angle D = 80^\circ$, $m\angle B = 60^\circ$

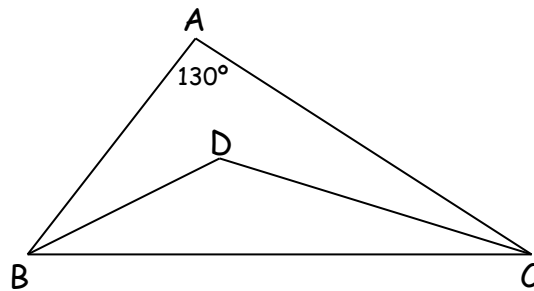
Find: a. CE
b. $m\angle BCE$
c. $m\angle BEC$



16) Always, Sometimes, Never

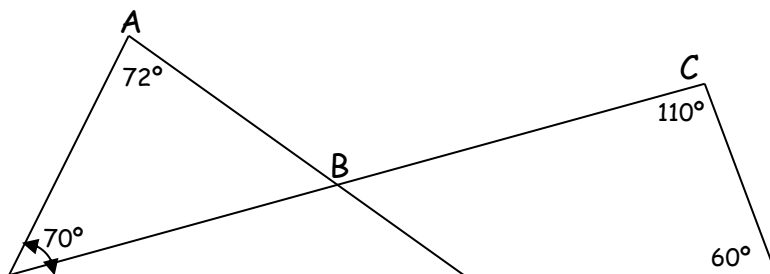
- a. An equiangular triangle is isosceles.
- b. The number of diagonals in a polygon is the same as the number of sides.
- c. An equilateral polygon is regular.
- d. An equiangular polygon is regular.
- e. The exterior angle of a triangle is larger than any interior angle.
- f. If you double the lengths of the sides of a triangle, then you double the measures of all the interior angles.

17) In $\triangle ABC$, $m\angle A = 130^\circ$, and $\angle ABC$ and $\angle ACB$ have been bisected. Find $m\angle D$.



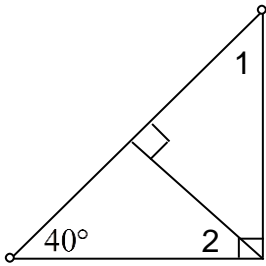
18) The sum of five of the six angles of a hexagon is 650° . What is the measure of the sixth angle?

19) Find $m\angle ABC$.

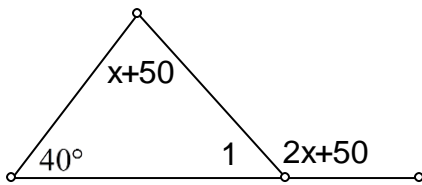


20) In a regular polygon, the measure of one exterior angle is 2 times as much as one interior angle. How many diagonals does this figure have?

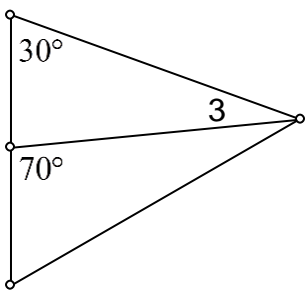
21) Find the measure of angles 1 and 2.



22) Find the measure of angle 1.



23) Find the measure of angle 3.



24) Find the measure of angles 1 and 2.

