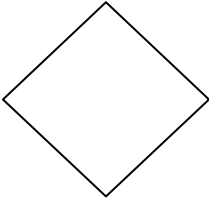
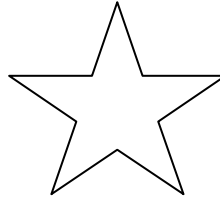


Identify each figure below as a *convex polygon*, *concave polygon*, or *not a polygon*.

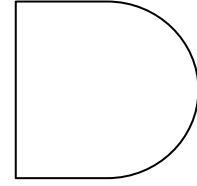
1)



2)



3)



Complete the polygon classification table.

4)

Number of Sides	Name of Polygon
3	Triangle
4	
5	
6	
8	
10	
n	

5) The polygon angle sum theorem states that the sum of the measures of the angles of a convex polygon with n sides is:

6) The sum of the measures of the exterior angles of a convex polygon is _____.

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For each polygon find a) the sum of the interior angles and b) the sum of the exterior angles.

7) quadrilateral

8) hexagon

9) decagon

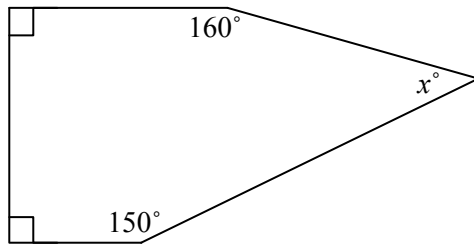
10) pentagon

11) octagon

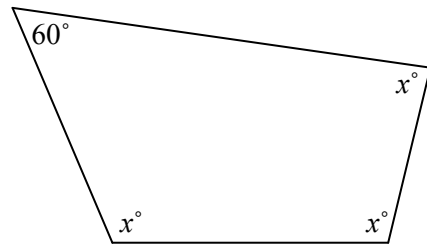
12) 18-gon

Find the value of x .

13)



14)



15) A _____ polygon is a polygon that is both equiangular and equilateral.

For each regular polygon, find the measure of a) each interior angle and b) each exterior angle.

16) triangle

17) hexagon

18) decagon

19) How many sides does a regular polygon have if the measure of each exterior angle is 60° ?

20) How many sides does a regular polygon have if the measure of each interior angle is 144° ?

Answer Key

- 1) Convex
- 2) Concave
- 3) Not a polygon
- 4) Quadrilateral, Pentagon, Hexagon, Octagon, Decagon, n -gon
- 5) $(n - 2)180$
- 6) 360
- 7) 360, 360
- 8) 720, 360
- 9) 1440, 360
- 10) 540, 360
- 11) 1080, 360
- 12) 2880, 360
- 13) 50
- 14) 100
- 15) Regular
- 16) 60, 120
- 17) 120, 60
- 18) 144, 36
- 19) 6
- 20) 10