Angles in Polygons – Assignment Part 1

I. Fill in the chart for the regular polygons.

Polygon	Sum of Interior ∠'s	Each Interior ∠	Sum of Exterior ∠'s	Each Exterior ∠
octagon				
heptagon				
20-gon				
pentagon				
	1440°			
12-gon				
18-gon				
hexagon				
				40°
36-gon				
		60°		
				90°
72-gon				

II. Solve the following word problems.

1) If the sum of the interior angles is 1980°, what is the name of the polygon?

2) If each of the exterior angles is 15°, what is the name of the polygon?

3) If each on the interior angles is 108°, what is the name of the polygon?

4) If it is a decagon, what is the sum of the exterior angles?

5) If the sum of the interior angles is 3600°, what is the name of the polygon?

6) If each of the exterior angles is 24°, what is the name of the polygon?

7) If each of the interior angles is 135°, what is the name of the polygon?

8) If each of the exterior angles is 60°, what is the name of the polygon?

9) If each interior angle is 160°, what is the name of the polygon?

Find the value of x in each of the following.