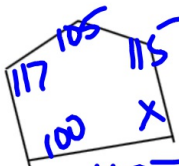


Find the missing angle measures.

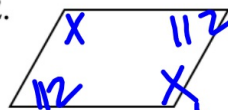
1.



$$437 + x = 540$$

$$x = 103^\circ$$

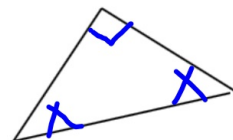
2.



$$2x + 224 = 360$$

$$x = 68^\circ$$

3.



$$x = 45^\circ$$

Find the sum of the measures of the angles of each polygon.

4. 16-gon

5. 72-gon

$$(16 - 2) \cdot 180$$

$$2520$$

$$(72 - 2) \cdot 180$$

$$12600$$

Find the measure of an interior angle and an exterior angle of each regular polygon.

6. Hexagon

$$\frac{720}{6}$$

$$= 120$$

$$= 60$$

7. Octagon

$$\frac{1080}{8}$$

$$= 135$$

$$= 45$$

The measure of an exterior angle of a regular polygon is given. Find the measure of an interior angle and find the number of sides.

8. Exterior angle = 20

$$n = 18$$

9. Exterior angle = 72

$$n = 5$$

$$8.) \frac{(n-2) \cdot 180}{n} = 160$$

$$9.) \frac{(n-2) \cdot 180}{n} = 108$$

The sum of the measures of the angles of a polygon with n sides is given. Find n .

10. 5040

11. 9720

$$(n-2) \cdot 180 = 5040$$

$$n-2 = 28$$

$$n = 30$$

$$(n-2) \cdot 180 = 9720$$

$$n = 56$$

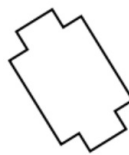
Classify each polygon by its sides. Identify each as convex or concave.

12.



Oct.
convex.

13.



12-gon
dodecagon
concave.