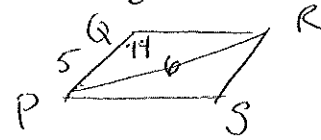


Geometry 22: Extra Practice for 6.1 & 6.2 Test

Don't forget to study your notes, look over your worksheets, homework, etc. There will be things on the test that are not covered on this review! Make sure you STUDY in addition to completing this worksheet!

1. Given that PQRS is a parallelogram, $PQ = 5$, $PR = 6$, $m\angle Q = 74^\circ$, find the following:

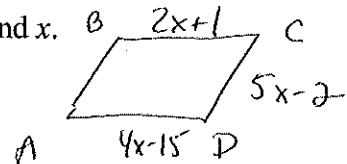
- a) SR 5 b) $m\angle R$ 106°
 c) $m\angle P$ 106° d) $m\angle S$ 74°



2. ABCD is a parallelogram. If $BC = 2x + 1$, $CD = 5x - 2$, and $AD = 4x - 15$, find x.

$$2x + 1 = 4x - 15$$

$$16 = 2x \quad \boxed{x = 8}$$

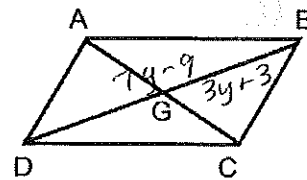


3. ABCD is a parallelogram. If $BD = 7y - 9$, $BG = 3y + 3$, find y.

$$2(3y + 3) = 7y - 9$$

$$6y + 6 = 7y - 9$$

$$\boxed{15 = y}$$



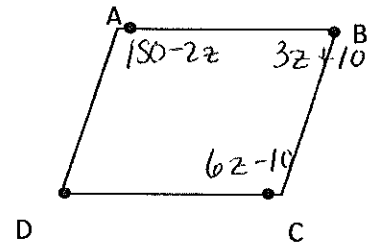
4. ABCD is a parallelogram.

If $m\angle A = (150 - 2z)^\circ$, $m\angle B = (3z + 10)^\circ$, $m\angle C = (6z - 10)^\circ$, find z.

$$150 - 2z = 6z - 10$$

$$160 = 8z$$

$$\boxed{z = 20}$$



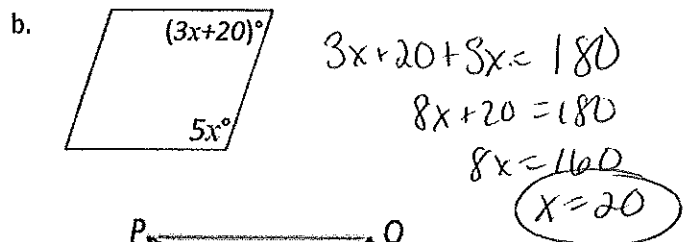
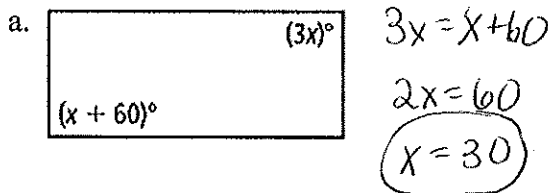
5. A figure with 10 sides is called a decagon.

6. A Heptagon has 7 sides.

7. State the number of sides for each of the following polygons.

- a. Hexagon 6 b. Nonagon 9 c. Dodecagon 12 d. 34-gon 34

8. Find the value of x in the given figure.



9. Find the values of x and y in $\square PQRS$ at the right.

What are PR and SQ?

$$x + 1 = y$$

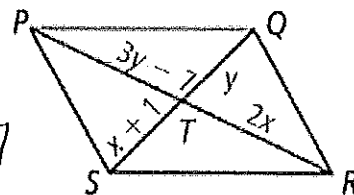
$$2x = 3y - 7$$

$$2x = 3(x + 1) - 7$$

$$2x = 3x + 3 - 7$$

$$-x = -4$$

$$\boxed{x = 4} \quad \boxed{y = 5}$$

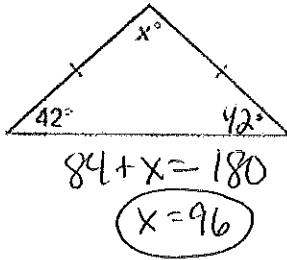


Find the sum of the measures of the interior angles of the convex polygon.

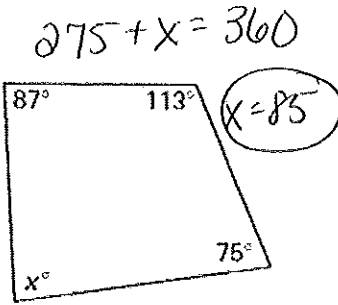
5. hexagon $180(6-2)$ 720° 6. octagon $(180)(8-2)$ 1080° 7. 12-gon $180(12-2)$ 1800 8. 15-gon $180(15-2)$ 2340°

Find the value of x .

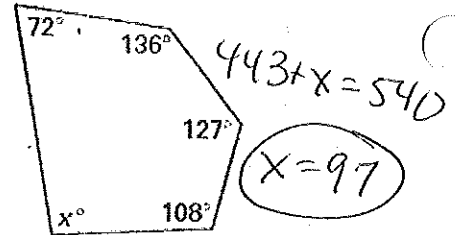
9.



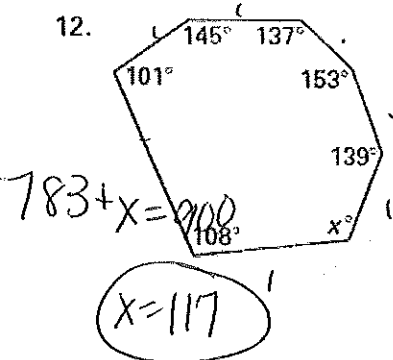
10.



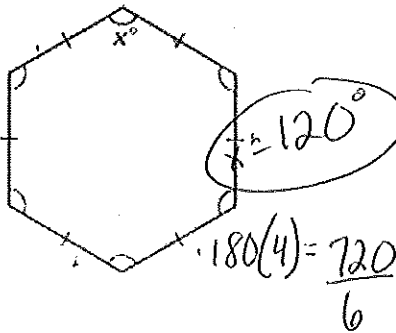
11.



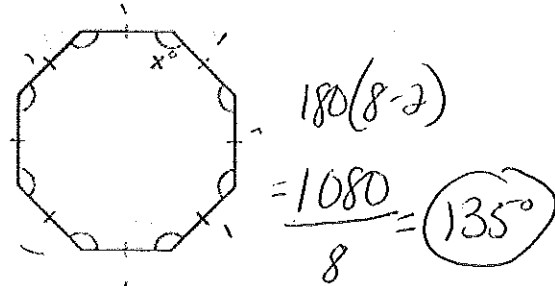
12.



13.



14.



You are given the measure of each interior angle of a regular n -gon. Find the value of n .

15. 90°

ext. = 90
 $\frac{360}{90} = 4$

16. 108°

ext. = 72
 $\frac{360}{72} = 5$

17. 135°

ext. = 45
 $\frac{360}{45} = 8$

18. 144°

ext. = 36
 $\frac{360}{36} = 10$

You are given the measure of each exterior angle of a regular n -gon. Find the value of n .

23. 90°

$\frac{360}{90} = 4$

24. 60°

$\frac{360}{60} = 6$

25. 45°

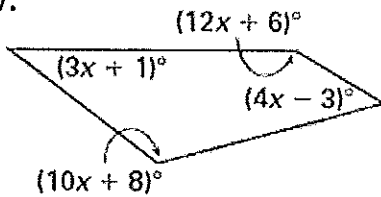
$\frac{360}{45} = 8$

26. 30°

$\frac{360}{30} = 12$

Find the value of x .

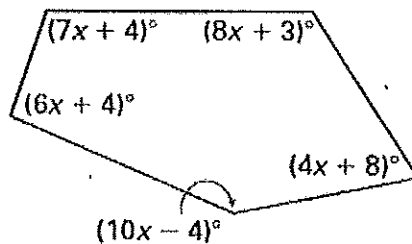
27.



$12x + 6$
 $+ 3x + 1$
 $+ 4x - 3$
 $+ 10x + 8$

 $29x + 12 = 360$
 $29x = 348$
 $x = 12$

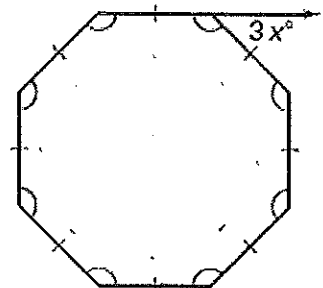
28.



$7x + 4$
 $8x + 3$
 $6x + 4$
 $4x + 8$
 $+ 10x - 4$

 $35x + 15 = 540$
 $35x = 525$
 $x = 15$

29.



$\frac{360}{8} = 45$
 $45 = 3x$
 $x = 15$