Geometry **Problem Set 2** **Name:**_____
2nd Semester **Period:**_____

Solve each of the following. Show all work.

1. The measure of one exterior angle of a regular polygon is 20°. What is the sum of the interior angles?

2. The sum of the interior angles of a regular polygon is 1800° . Name the polygon.

3. One of the interior angles of a regular polygon measures 86°. What is the sum of the exterior angles?

4. Four interior angles of a pentagon have measures of 105°, 108°, 95°, and 110°. Find the measure of the fifth angle.

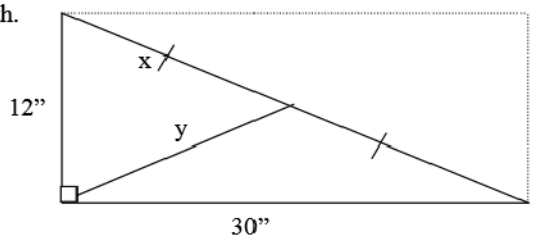
5. Find the measure of one exterior angle of a regular 15-gon.

6. Find the measure of one interior angle of a regular 30-gon.

7. Find x and y to the nearest tenth.

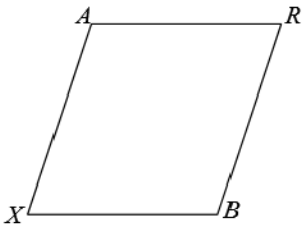
x =_____

y =_____



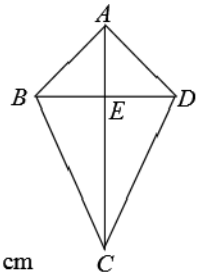
Given the following rhombus and kite, find the area of each figure.

8.



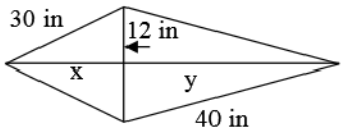
RX = 16 cm
RB = 10 cm

9.



BD = 26 cm
AC = 50 cm

10. Find x, y, and the area of the kite to the nearest tenth.

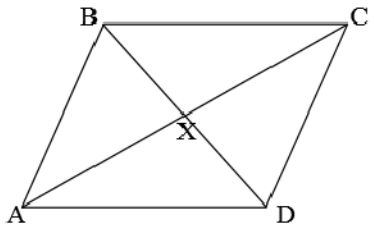


10. x = _____

y = _____

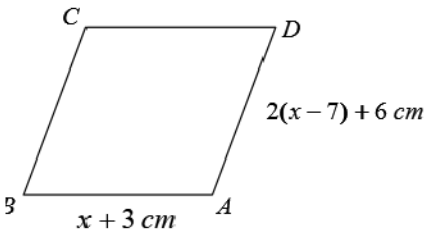
Area = _____

11. Given: ABCD is a parallelogram.
Prove: $\Delta BXC \cong \Delta DXA$



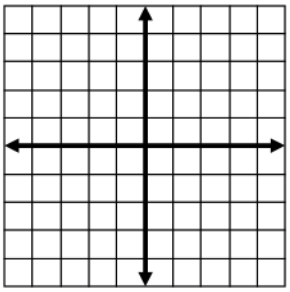
1. ABCD is a parallelogram.	1. Given
2. $\overline{BC} \cong \overline{DA}$	2.
3.	3. Diagonals of a parallelogram bisect each other.
4. $\overline{AX} \cong \overline{CX}$	4.
5.	5.

12. A[illegible]. Find the perimeter.



13. Using coordinate geometry, determine the most precise name for quadrilateral WXYZ.

W (-1,4) X (2,5)
Y(2,1) Z(-1,2)



The most precise name for quadrilateral WXYZ is _____ because

_____

_____

_____

_____

_____

(Work space for #13)