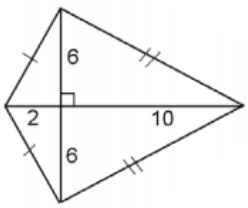
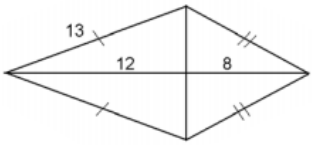
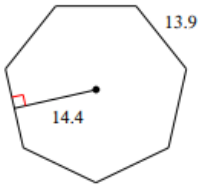
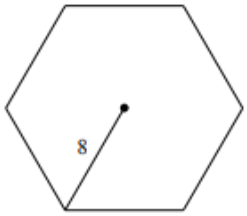
11.3 Name_____

1.Find the area of the figure below. Write the formula and show all work.

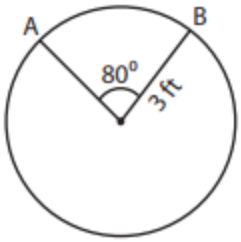




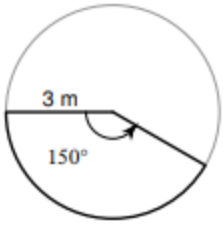




2. Find the length of the arc



3. Find the area of the sector.



4. <u>DRAW A PICTURE OF BOTH TRIANGLES!!!!!!! Note: these are not proofs.</u>

State the third congruence that must be given to prove that $\triangle DEF \cong \triangle MNO$, using the indicated postulate or theorem.

Given: $\overline{DE} \cong \overline{MN}$
$\angle M \cong \angle D$
Method: SAS Congruence Postulate

Given: $\overline{FE} \cong \overline{ON}$
$\angle F \cong \angle O$
Method: AAS Congruence Theorem

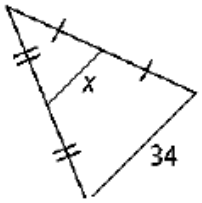
Given: $\overline{DF} \cong \overline{MO}$
$\angle F \cong \angle O$
Method: ASA Congruence Postulate

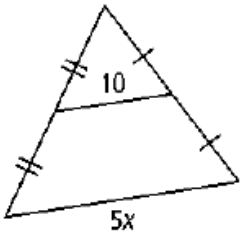
5. Convert 120 degrees to radians.

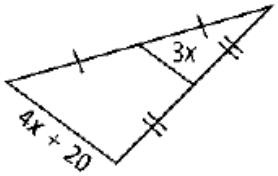
6. Convert $\frac{7\pi}{4}$ radians to degrees.

7. A bird is sitting on top of a flagpole. The bird looks down at a worm at an angle of depression of 35 degrees. If the worm is 14 feet from the flag pole then how tall is the flag pole? Include a picture.

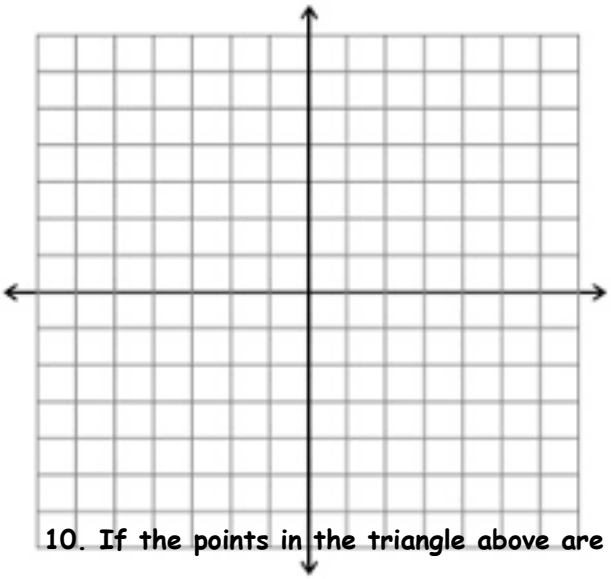
8. Find x.







9. Triangle ABC has points A(-2,4), B(3,-1) and C(5,0). Graph the points. Then find the perimeter of the triangle. Show all work. Hint: use the distance formula 3 times!!!!!!!!!!!!!!! You know how to do this problem.



10. If the points in the triangle above are reflected over the line y=x, what would the new coordinates be?

11. If the original points for the triangle in the graph above are rotated 270 degrees, what would the new coordinates be?