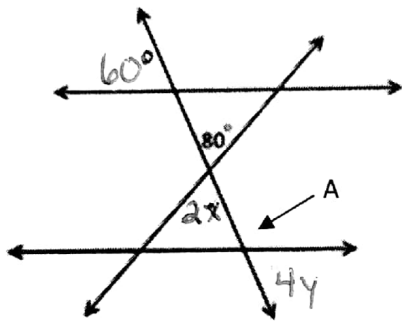


Parallel Lines Cut by a Transversal

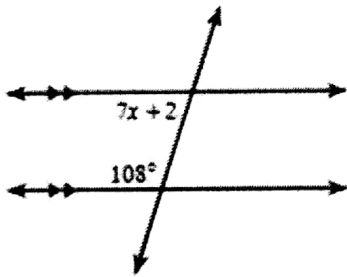
Given: Lines AB and CD are parallel. Another line EF cuts across the two parallel lines.

- 1) The two angles that sit on opposite sides of a transversal, inside the parallel lines are called _____ angles and would be congruent.
- 2) The two angles that sit on the same side of a transversal and in the same location are called _____ angles and are congruent.
- 3) Solve for x and y, then find angle A.



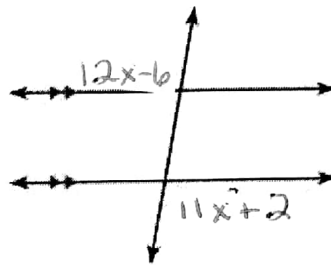
x = _____ y = _____ A = _____

- 5) Find the value of x.



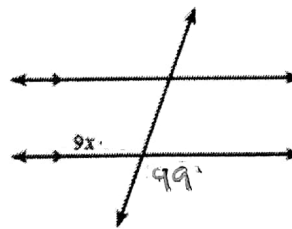
x = _____

- 4) Find the measure of the alternate exterior angles in the diagram below



x = _____ Angle measure = _____

- 6) Find the value of x.



x = _____

Properties of Angles

- 7) If two angles add to 90 degrees, they are called _____ angles.
- 8) Two adjacent angles who's sum add to 180 degrees are called a _____.
- 9) When two lines intersect, there are two pairs of opposite angles that are called _____ angles.

10) The measure of angle A is 20, Find the complementary angle, $\angle B$.

11) The measure of an angle is 30, Find the supplementary angle, $\angle C$.

$m\angle = B$ _____

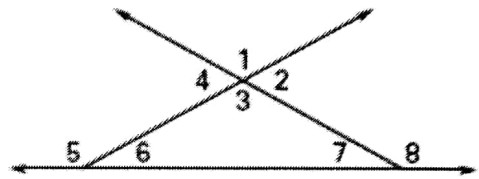
$m\angle C =$ _____

12) In the diagram below, $\angle 1$ and $\angle 2$ are a linear pair. The $m\angle 1 = x$ and $m\angle 2 = 2x$. Find the measure of each angle.



$m\angle 1 =$ _____, $m\angle 2 =$ _____

For questions 13-15, use the diagram to tell whether the angles are vertical angles, a linear pair, or neither.



13) $\angle 1$ and $\angle 3$ _____

14) $\angle 2$ and $\angle 3$ _____

15) $\angle 3$ and $\angle 7$ _____

5 Bonus Points: Solve for ALL angles in the diagram below. Label all four angle measures.

