NAME:_____

1. The complement of an angle is 46°. What is the measure of the angle?

2. If $\angle A$ and $\angle B$ are complementary angles and $m\angle A = 5m\angle B$, find $m\angle A$ and $m\angle B$.

3. Twice the complement of angle A is 40° less than the supplement of angle A. Find the measure of angle A.

4. If $\angle A$ and $\angle B$ are complementary angles and $m\angle A = 2m\angle B$ find $m\angle A$ and $m\angle B$.

   [A] none of these [B] 120, 60

   [C] 60, 30 [D] 90, 90

5. Four times the supplement of an angle exceeds 9 times the complement of the same angle by 50°. What is the angle?

6. If $\angle A$ and $\angle B$ are supplementary angles and $m\angle A = 8m\angle B$, find $m\angle A$ and $m\angle B$.

   [A] 78.75, 11.25 [B] 80, 10

   [C] 160, 20 [D] 157.5, 22.5

7. a. $\angle AOC$ contains points $A(0, 3)$, $O(0, 0)$ and $C(4, -1)$. Give the coordinates of a point D so that $\angle DOC$ is supplementary to $\angle AOC$.

   b. Give the coordinates of a point E so that $\overline{OE}$ is a side of a different angle that is adjacent and supplementary to $\angle AOC$.

8. a. $\angle AOC$ contains points $A(-3, 2)$, $O(0, 0)$ and $C(-4, 0)$. Give the coordinates of a point D so that $\angle DOC$ is complementary to $\angle AOC$.

   b. Give the coordinates of a point E so that OE is a side of a different angle that is adjacent and supplementary to $\angle AOC$.

9. If line AB crosses line CD at point O, $\angle AOD$ and $\angle COB$ must be

   [A] obtuse [B] congruent

   [C] complementary [D] adjacent

10. Draw a diagram showing complementary angles BAC and CAD where the measure of $\angle BAC$ is 50°.

[1] 44°

[2] 75, 15

[3] 40°

[4] C

[5] 28°

[6] C

[7] a. Answers may vary. Sample: $(0, -6)$
b. Answers may vary. Sample: $(-4, 1)$

[8] Answers may vary. Sample:
a. (0, 4)
b. $(3, -2)$

[9] B

[10]