

NAME: \_\_\_\_\_

1. The complement of an angle is  $46^\circ$ . 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  $40^\circ$  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  $50^\circ$ . 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  $50^\circ$ .

[1]  $44^\circ$  \_\_\_\_\_

[2] 75, 15 \_\_\_\_\_

[3]  $40^\circ$  \_\_\_\_\_

[4] C \_\_\_\_\_

[5]  $28^\circ$  \_\_\_\_\_

[6] C \_\_\_\_\_

a. Answers may vary. Sample:  $(0, -6)$

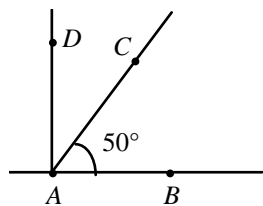
[7] b. Answers may vary. Sample:  $(-4, 1)$  \_\_\_\_\_

Answers may vary. Sample:

a.  $(0, 4)$

[8] b.  $(3, -2)$  \_\_\_\_\_

[9] B \_\_\_\_\_



[10] \_\_\_\_\_