Name: _____

Writing Equations to Find Unknown Angles

Write and solve an equation to find x.

1. Two vertical angles measure (2x + 26)° and 82°. Find x.

   Answer: _____

2. Two angles are complementary. They measure 4x° and (x + 55)°. Find x.

   Answer: _____

3. Two vertical angles measure (4x + 14)° and 126°. Find x.

   Answer: _____

4. Two angles are complementary. They measure 2x° and (x + 39)°. Find x.

   Answer: _____

5. Two vertical angles measure (3x + 6)° and 66°. Find x.

   Answer: _____

6. Two angles are complementary. They measure 2x° and (x + 12)°. Find x.

   Answer: _____

7. Two angles are complementary. They measure 2x° and (x + 75)°. Find x.

   Answer: _____

8. Two angles are complementary. They measure 3x° and (x + 10)°. Find x.

   Answer: _____

9. Two vertical angles measure (5x + 13)° and 68°. Find x.

   Answer: _____

10. Two angles are supplementary. One measures 4x° and the other measures (3x + 54)°. Find x.

    Answer: _____

11. Two angles are supplementary. One measures 2x° and the other measures (3x + 145)°. Find x.

    Answer: _____

12. Two angles are complementary. They measure 3x° and (x + 54)°. Find x.

    Answer: _____

Name: **ANSWER KEY**

Writing Equations to Find Unknown Angles

Write and solve an equation to find x.

1. Two vertical angles measure (2x + 26)° and 82°. Find x.

Answer: x = 28

2. Two angles are complementary. They measure 4x° and (x + 55)°. Find x.

Answer: x = 7

3. Two vertical angles measure (4x + 14)° and 126°. Find x.

Answer: x = 28

4. Two angles are complementary. They measure 2x° and (x + 39)°. Find x.

Answer: x = 17

5. Two vertical angles measure (3x + 6)° and 66°. Find x.

Answer: x = 20

6. Two angles are complementary. They measure 2x° and (x + 12)°. Find x.

Answer: x = 26

7. Two angles are complementary. They measure 2x° and (x + 75)°. Find x.

Answer: x = 5

8. Two angles are complementary. They measure 3x° and (x + 10)°. Find x.

Answer: x = 20

9. Two vertical angles measure (5x + 13)° and 68°. Find x.

Answer: x = 11

10. Two angles are supplementary. One measures 4x° and the other measures (3x + 54)°. Find x.

Answer: x = 18

11. Two angles are supplementary. One measures 2x° and the other measures (3x + 145)°. Find x.

Answer: x = 7

12. Two angles are complementary. They measure 3x° and (x + 54)°. Find x.

Answer: x = 9