

Modeling Relationships with Equations Using Complementary and Supplementary Angles

Answer the following questions by creating an equation that will allow you to solve for the unknown values.

1. Two angles are supplementary. The measure of the smaller angle is one-half the measure of the larger angle. Find the degree measure of each angle.
2. The measure of the supplement of an angle is 60 degrees more than twice the measure of the angle. Find each angle.
3. Two angles are complementary. The measure of the larger angle is 5 times the measure of the smaller angle. Find the degree measure of each angle.
4. Two angles are complementary. The degree measure of the smaller angle is 50 less than the degree measure of the larger. Find each angle measure.
5. The measure of the complement of an angle exceeds the measure of the angle by 24 degrees. Find the degree measure of each angle.

6. An angle measures 15 degrees more than its complement. Find the measures of the two angles.
7. One of the two supplementary angles measures 30 degrees more than twice the other. Find the measure of each angle.
8. The measure of an angle is 74 degrees greater than its supplement. Find the measure of each angle.
9. One of two complementary angles is 24 degrees more than twice the other. Find the measure of each angle.
10. The difference between the degree measures of two supplementary angles is 80. Find the degree measures of the angles.