Intervention: Complementary and Supplementary Angles

Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1) If the sum of two angles is a right angle, then they are \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

2) If the sum of two angles is a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, then they are supplementary.

3) If the measure of an angle is *x*, the measure of its complement is *90 - x,* and the measure of its supplement is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

4) If two angles are supplementary to the same angle, then they are \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. *This is a theorem that is used to prove angles are congruent.*

5) If two angles are complementary to congruent angles, then they are \_\_\_\_\_\_\_\_\_\_\_\_\_.

6) One of two supplementary angles is 70° greater than the second. Find the measure of the larger angle.

*x = the measure of the angle*

*180 - x = the supplement of the angle*

*Solve:*

*x = (180 - x) + 70*

7) One of two complementary angles is 10° less than four times the other. Find the measure of each angle.

8) Given: Diagram as shown

**2**

**1**

Conclusion: is supp. to 

**B**

**C**

**A**

|  |  |
| --- | --- |
| **Statements** | **Reasons** |
| 1) Diagram as shown | 1) |
| 2) | 2) Assumed from diagram |
| 3) is supp. to | 3) |

9) Given: Diagram as shown



**3**

**4**

**2**

**1**

Prove: 

**G**

**S**

**O**

**D**

**

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| --- | --- |
| **Statements** | **Reasons** |
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