**1.5 Complements and Supplements**

Use the following expressions in each problem you work.

THE ANGLE = ***A*** THE COMPLEMENT = ***B*** THE SUPPLEMENT = ***C***

Complementary angle equations: *A + B = 90*° Supplementary angle equations: *A + C = 180°*

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**I. Practice writing algebraic expressions.**

1. 7 more than a number \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 2. 8 less than a number\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

3. twice a number\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 4. one-fourth a number\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

5. 9 less than twice a number\_\_\_\_\_\_\_\_\_\_\_\_ 6. 5 more than 3 times a number\_\_\_\_\_\_\_\_\_\_\_

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**II. Solving complement and supplement problems.**

1. The complement of an angle is 5 times as large as the angle. Find the angle and its complement.

**A/angle = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**B/Complement = \_\_\_\_\_\_\_\_\_\_**

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2. The complement of an angle is 10 more than the angle. Find the angle and its complement.

**A/angle = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**B/Complement = \_\_\_\_\_\_\_\_\_\_**

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3. The complement of an angle is 15 more than twice the angle. Find the angle and its complement.

**A/angle = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**B/Complement = \_\_\_\_\_\_\_\_\_\_**

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4. The supplement of an angle is 5 times as large as the angle. Find the angle and its supplement.

**A/angle = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**C/Supplement = \_\_\_\_\_\_\_\_\_\_**

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5. An angle is one-third of its supplement. Find the angle and its supplement.

**A/angle = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**C/Supplement = \_\_\_\_\_\_\_\_\_\_**

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6. The supplement of an angle is 12 less than 3 times the angle. Find the supplement.

**A/angle = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**C/Supplement = \_\_\_\_\_\_\_\_\_\_**

**II ANSWERS**: 1.) 15°, 75° 2.) 40°, 50° 3.) 25°, 65° 4.) 30°, 150° 5.) 45° 135° 6.) 48°, 132°