COMPLEMENTARY ANGLES

For each pair of complementary angles in #1-8, solve for \( x \) and determine the measures of the angles.

1. \( (6x+2)° \) and \( (11x+3)° \)
   \[ 17x + 5 = 90 \]
   \[ 17x = 85 \]
   \[ x = 5 \]
   \( \angle \text{ANG} = 32° \)
   \( \angle \text{GNL} = 58° \)

2. \( (5x+3)° \) and \( (6x-1)° \)
   \[ 11x + 2 = 90 \]
   \[ 11x = 88 \]
   \[ x = 8 \]
   \( \angle \text{OAK} = 43° \)
   \( \angle \text{KAL} = 47° \)

3. \( (3x+6)° \) and \( (5x-4)° \)
   \[ 8x + 2 = 90 \]
   \[ 8x = 88 \]
   \[ x = 11 \]
   \( \angle \text{LET} = 51° \)
   \( \angle \text{TES} = 39° \)

4. \( (12x-9)° \) and \( (4x+3)° \)
   \[ 10x - 60 = 90 \]
   \[ 10x = 150 \]
   \[ x = 15 \]
   \( \angle \text{MNS} = 63° \)
   \( \angle \text{SNT} = 27° \)

5. \( (5x+3)° \) and \( (3x+7)° \)
   \[ 8x + 10 = 90 \]
   \[ 8x = 80 \]
   \[ x = 10 \]
   \( \angle \text{DNI} = 37° \)
   \( \angle \text{VLC} = 53° \)

6. \( (3x-2)° \) and \( (5x-4)° \)
   \[ 8x - 60 = 90 \]
   \[ 8x = 150 \]
   \[ x = 18.75 \]
   \( \angle \text{WSH} = 34° \)
   \( \angle \text{TAN} = 56° \)

7. \( (8x-7)° \) and \( (5x+6)° \)
   \[ 13x - 1 = 90 \]
   \[ 13x = 91 \]
   \[ x = 7 \]
   \( \angle \text{TMB} = 41° \)
   \( \angle \text{DVL} = 49° \)

8. \( (8x-15)° \) and \( (3x+6)° \)
   \[ 11x - 9 = 90 \]
   \[ 11x = 99 \]
   \[ x = 9 \]
   \( \angle \text{BTN} = 57° \)
   \( \angle \text{RSC} = 33° \)
SUPPLEMENTARY ANGLES

For each pair of supplementary angles in #1-8, solve for $x$ and determine the measures of the angles.

1. $30x = 180$
   - $x = 6$

2. $21x - 9 = 180$
   - $x = 9$

3. $35x + 5 = 180$
   - $x = 5$

4. $22x + 4 = 180$
   - $x = 8$

5. $45x = 180$
   - $x = 4$

6. $19x - 10 = 180$
   - $x = 10$

7. $16x - 12 = 180$
   - $x = 12$

8. $14x - 2 = 180$
   - $x = 13$