

$\angle 1$  &  $\angle 2$  are complementary angles,  
 $m\angle 1 = 2x + 7$  &  $m\angle 2 = 4x - 19$ . Find the  
measure of each angle.

$$\angle 1 + \angle 2 = 90$$

$$2x + 7 + 4x - 19 = 90$$

$$6x - 12 = 90$$

$$6x = 102$$

$$x = 17$$

$$\angle 1 = 2(17) + 7 = 41^\circ$$

$$\angle 2 = 4(17) - 19 = 49^\circ$$

$\angle 3$  &  $\angle 4$  are supplementary angles,  
 $m\angle 3 = 5x + 22$  &  $m\angle 4 = 7x + 2$ . Find the  
measure of each angle.

$$\angle 3 + \angle 4 = 180$$

$$5x + 22 + 7x + 2 = 180$$

$$12x + 24 = 180$$

$$12x = 156$$

$$x = 13$$

$$\angle 3 = 5(13) + 22 = 87^\circ$$

$$\angle 4 = 7(13) + 2 = 93^\circ$$

$\angle Q$  &  $\angle R$  are complementary angles,  
 $m\angle Q = 5x + 7$  &  $m\angle R = 11x - 3$ . Find the  
measure of angle Q.

$$\angle Q + \angle R = 90$$

$$5x + 7 + 11x - 3 = 90$$

$$16x + 4 = 90$$

$$16x = 86$$

$$x = 5.375$$

$$\angle Q = 5(5.375) + 7 = 33.8^\circ$$

$\angle M$  &  $\angle N$  are supplementary angles,  
 $m\angle M = 3x$  &  $m\angle N = 9x - 12$ . Find the  
measure of angle N.

$$\angle M + \angle N = 180$$

$$3x + 9x - 12 = 180$$

$$12x - 12 = 180$$

$$12x = 192$$

$$x = 16$$

$$\angle N = 9(16) - 12 = 132^\circ$$