Linear Systems in Three Variables

Solve the following systems of equations

1. $2p + q - r = 8$
   $q + r = 4$
   $p - q = 2.$

2. $x + y = 3$
   $y + z = 6$
   $x + z = 5$

3. $r = 2(s - t)$
   $2t = 3(s - r)$
   $r + t = 2s - 3$

4. $2a + 4b + c = 5$
   $a - 4b = -6$
   $2b + c = 7$

5. $2x + y - z = -5$
   $4x - 2y + z = 10$
   $2x + 3y + 2z = 3$

6. $r + 3s + t = 3$
   $2r - 3s + 2t = 3$
   $-r + 3s - 3t = 1$

Linear Systems in Three Variables

Solve the following systems of equations

1. $2p + q - r = 8$
   $q + r = 4$
   $p - q = 2.$

   $p = 4, q = 2, r = 2$

2. $x + y = 3$
   $y + z = 6$
   $x + z = 5$

   $x = 1, y = 2, z = 4$

3. $r = 2(s - t)$
   $2t = 3(s - r)$
   $r + t = 2s - 3$

   $r = 2, s = 4, t = 3$

4. $2a + 4b + c = 5$
   $a - 4b = -6$
   $2b + c = 7$

   $a = -2, b = 1, c = 5$

5. $2x + y - z = -5$
   $4x - 2y + z = 10$
   $2x + 3y + 2z = 3$

   $x = \frac{1}{2}, y = -2, z = 4$

6. $r + 3s + t = 3$
   $2r - 3s + 2t = 3$
   $-r + 3s - 3t = 1$

   $r = 3, s = \frac{1}{3}, t = -1$