Systems of Equations - Elimination Method

Solve each system of equations using elimination method.

1) $-2b = 19 + 7c - 9d$
   $8b - 5c + 3d = -13$
   $-c = -38 - 4b + 6d$

   _____

2) $5u - 3w = -11$
   $-2u + 7v - 4w = 3$
   $64 = -9u + 8v + 6w$

   _____

3) $-2r - 5q - 8p = $
   $q + 4p - 7r = -4$
   $6p - 9q + 2r = $

   _____

   17
   9
   32

   _____

5) $9s - 2t + u = 42$
   $53 = 6s - 5t$
   $7s - 5t + 8u = 6$

   _____

   0

   14

   _____

7) $7x - y + 8z = -16$
   $9x + 4y - 2z = -26$
   $-3x + 5y = -40$

   _____

8) $-6a + 4b + 7c = 21$
   $-5a = -24 - 9b - 8c$
   $3b + 2c = -14 + a$

   _____

Answer key

Systems of Equations - Elimination Method

Sheet 3

Solve each system of equations using elimination method.

1) $-2b = 19 + 7c - 9d$

   $8b - 5c + 3d = -13$

   $-c = -38 - 4b + 6d$

   (−1, 4, 5)

2) $5u - 3w = -11$

   $-2u + 7v - 4w = 3$

   $64 = -9u + 8v + 6w$

   (2, 5, 7)

3) $-2r - 5q - 8p =$

   $q + 4p - 7r = -4$

   $6p - 9q + 2r = 3$

   $\left(-\dfrac{9}{2}, -6, 3\right)$

   17

   9

   32

5) $9s - 2t + u = 42$

   $53 = 6s - 5t$

   $7s - 5t + 8u = 6$

   (3, −7, 1)

   0

   14

7) $7x - y + 8z = -16$

   $9x + 4y - 2z = -26$

   $-3x + 5y = -40$

   (0, −8, −3)

8) $-6a + 4b + 7c = 21$

   $-5a = -24 - 9b - 8c$

   $3b + 2c = -14 + a$

   (−2, −10, 7)