

Solve the following systems of 3 equations with three unknowns:

1. $3a - 2b + 2c = 1$
 $2a + 5b - 5c = 7$
 $4a - 3b + c = -3$
 2. $2x + 2y + z = 3$
 $3x + 2y - 2z = -1$
 $5x - 2y - 6z = 17$
 3. $a + 3b + 4c = 6$
 $a - 2b + c = 10$
 $2a + 3b - c = 0$
 4. $2x + y + 3z = 9$
 $x - 2y + z = 8$
 $-4x + 3y + 2z = -4$
 5. $x + y + 3z = 7$
 $2x - 4y + z = 7$
 $3x + 5y - 4z = -6$
 6. $x - 2y = -(9+z)$
 $2(x+y) = 5 + 3z$
 $3y - x = 7 - 4z$
 7. $2x + 5y + 2z = -5$
 $-3x + 3y + 5z = 2$
 $x + 4y - z = 3$
 8. $2x + 3y = 6 + z$
 $x - 2y = -1 - z$
 $3x + y = -1 + 3z$
 9. $2x - y = 3z - 3$
 $3x + 2y = z - 1$
 $x + 3y = z - 10$
 10. $x + y - 3z = 10$
 $y + z = 12$
 $z = -2$
 11. $x + y + z = 5$
 $2x + z = 8$
 $3y + 2z = 5$
 12. $3x + y + 2z = 5$
 $x - y + 4z = 12$
 $2x + y - 2z = -3$
 13. $2x - y + z = 11$
 $x + 2y + 3z = 8$
 $3x - 4y - 5z = -2$
1. $\{1, 3, 2\}$
 2. $\{5, -5, 3\}$
 3. $\{4, -2, 2\}$
 4. $\{1, -2, 3\}$
 5. $\{3/2, -1/2, 2\}$
 6. $\{-2, 3, -1\}$
 7. $\{-1, 0, -4\}$
 8. $\{1, 2, 2\}$
 9. $\{3, -3, 4\}$
 10. $\{-10, 14, -2\}$
 11. $\{2, -1, 4\}$
 12. $\{2, -4, 3/2\}$
 13. $\{2, -3, 4\}$