Simultaneous Equations - 3 Variables

Solve the following equations with three unknowns;

1. $x + y + z = 6$
   $2x + y + 3z = 13$
   $x - y + z = 2$

2. $3x + 2y + z = 7$
   $x - 2y + z = -1$
   $2x + y + 2z = 3$

3. $x + y + z = 1$
   $2x - y - 3z = 12$
   $3x + 2y - 2z = 13$

4. $2x - y - z = 17$
   $x + 3y - 2z = 6$
   $3x + y + z = 13$

5. $2x - 3y + 4z = 16$
   $x + 3y - 2z = -5$
   $3x - 2y + 3z = 16$

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

7. $2x - 3y + z = -3$
   $x + 2y + 3z = 13$
   $3x + y - 2z = -4$

8. $\frac{x}{2} + y + \frac{z}{3} = 3$
   $x + y + z = 6$
   $\frac{x}{4} + \frac{y}{2} + z = 4$

9. $\frac{x}{3} + \frac{y}{2} + \frac{z}{4} = 7$
   $\frac{x}{2} + y + \frac{z}{3} = 11$
   $\frac{x}{6} + \frac{y}{4} + \frac{z}{6} = 4$

10. $x + y + z = 9$
    $\frac{x}{2} + \frac{y}{3} + \frac{z}{4} = \frac{11}{3}$
    $\frac{3x}{4} + \frac{2y}{3} + \frac{5z}{2} = \frac{31}{12}$

11. $\frac{2x}{3} + \frac{y}{2} + \frac{3z}{4} = \frac{21}{4}$
    $x - y - z = 19$
    $\frac{3x}{4} - \frac{4y}{5} - \frac{2z}{3} = 15$