Linear Equations

After finding solutions: Check that they are correct!

1. Find all solutions of the equations

$$x + 2y = 3, \tag{1}$$
$$3x + y = 2. \tag{2}$$

2. Find all solutions of the equations

$$x + 2y = 3, \tag{3}$$
$$2x + 4y = 6. \tag{4}$$

3. Find all solutions of the equations

$$x + 2y = 3, \tag{5}$$
$$2x + 4y = 4. \tag{6}$$

4. Find all solutions of the equations

$$x + 2y = 0, \qquad (7)$$
$$3x + y = 0. \qquad (8)$$

5. Find all solutions of the equations

$$x + 2y = 0, \qquad (9)$$
$$2x + 4y = 0. \qquad (10)$$

6. Find all solutions of the equations

$$x + 2y + z = 0, \qquad (11)$$
$$2x + 4y + z = 0, \qquad (12)$$
$$x + y + 2z = 0. \qquad (13)$$

7. Find all solutions of the equations

$$x + 2y + z = 0, \qquad (14)$$
$$2x + 4y + 2z = 0, \qquad (15)$$
$$x + y + 2z = 0. \qquad (16)$$