

Exercise 1.4

1. Use the elimination method to solve the following pairs of simultaneous linear equations:

(a) $-2x + y = 2$

$$2x + y = -6$$

(c) $2x + y = 4$

$$4x - 3y = 3$$

5. If the following system of linear equations has infinitely many solutions, find the value of k .

$$6x - 4y = 2$$

$$-3x + 2y = k$$

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2. Write down a possible set of values of the numbers a and b for which the simultaneous equations:

(a) $2x + 3y = 4$ have infinitely many solutions

$$ax + 6y = b$$

(b) $4x - 6y = 1$ have no solutions

$$2x + ay = b$$

4. Solve the following systems of equations:

(a) $x - 3y + 4z = 5$ (1)

$$2x + y + z = 3$$
 (2)

$$4x + 3y + 5z = 1$$
 (3)