

Make x the subject

1 $ax + 3 = cx + 7 \quad x = \frac{4}{a-c}$

2 $kx - 5 = 2x + p \quad x = \frac{p+5}{k-2}$

3 $y = ax + 5x \quad x = \frac{y}{a+5}$

4 $tx + 4 = 3x + q \quad x = \frac{q-4}{t-3}$

5 $px = qx + 6 \quad x = \frac{6}{p-q}$

6 $ax - c = 2x + c \quad x = \frac{2c}{a-2}$

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7 $a(x+2) = c(x-1) \quad x = \frac{2a+c}{c-a}$

8 $k(x-3) = x+4 \quad x = \frac{3k+4}{k-1}$

9 $p(2-x) = q(x+1) \quad x = \frac{2p-q}{p+q}$

10 $3(x+a) = c(x-2) \quad x = \frac{3a+2c}{c-3}$

11 $t(x+1) = 4x \quad x = \frac{t}{4-t}$

12 $a(x-c) = 2(x+c) \quad x = \frac{ac+2c}{a-2}$

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13 $y = \frac{x+3}{x-2} \quad x = \frac{2y+3}{y-1}$

14 $y = \frac{2x}{x+5} \quad x = \frac{5y}{2-y}$

15 $a = \frac{x-1}{x+4} \quad x = \frac{4a+1}{1-a}$

16 $y = \frac{3x+1}{x} \quad x = \frac{1}{y-3}$

17 $k = \frac{x+c}{x} \quad x = \frac{c}{k-1}$

18 $y = \frac{4-x}{2x+1} \quad x = \frac{4-y}{2y+1}$

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19 $\frac{x}{a} + \frac{x}{c} = 1 \quad x = \frac{ac}{a+c}$

20 $xy + 3 = 2x \quad x = \frac{3}{2-y}$

21 $ax = c(1-x) \quad x = \frac{c}{a+c}$

22 $x+k = kx \quad x = \frac{k}{k-1}$

23 $2x - y = xy \quad x = \frac{y}{2-y}$

24 $p - x = qx + r \quad x = \frac{p-r}{q+1}$

Make x the subject

25 $ax^2 + 3 = cx^2 + 7 \quad x = \pm\sqrt{\frac{4}{a-c}}$

26 $y = \frac{x^2+1}{x^2-2} \quad x = \pm\sqrt{\frac{2y+1}{y-1}}$

27 $k(x^2-1) = x^2+5 \quad x = \pm\sqrt{\frac{k+5}{k-1}}$

28 $p = \frac{x^2}{x^2+q} \quad x = \pm\sqrt{\frac{pq}{1-p}}$

29 $tx^2 = c(1-x^2) \quad x = \pm\sqrt{\frac{c}{t+c}}$

30 $y = \frac{3-x^2}{x^2+1} \quad x = \pm\sqrt{\frac{3-y}{y+1}}$