

Rearranging Equations

1) Make the letter in brackets the subject of the formula

a) $8v = 7$ (v)

c) $v + c = 9$ (v)

e) $3z - 9a = 4B$ (z)

g) $7D^2 = 3c + 3x$ (c)

i) $v + 8t + 5C = 11N$ (v)

b) $2Aa = 7D$ (a)

d) $4c + s = 7H$ (s)

f) $7T = 6v + 5c$ (v)

h) $-t + c - H = T$ (c)

j) $3P + s - 10v = 4W$ (s)

k) $4s + 11c = 5N + 3S$ (s)

m) $4 = \frac{11x}{3}$ (x)

o) $\frac{11v}{3e} = 8j$ (v)

q) $8 = \frac{6}{v}$ (v)

s) $\frac{9h}{s} = 11D$ (s)

l) $\frac{x}{3} = 6$ (x)

n) $A = \frac{x}{u}$ (x)

p) $8 = \frac{6+a}{5}$ (a)

r) $\frac{A}{t} = q$ (t)

t) $1 = 4 + \frac{5}{4v}$ (v)

ANSWERS

1) a) $v = \frac{7}{8}$

d) $s = 7H - 4c$

g) $c = \frac{7D^2 - 3x}{3}$

j) $s = 4W - 3P + 10v$

m) $x = \frac{12}{11}$

p) $a = 34$

s) $s = \frac{9h}{11D}$

b) $a = \frac{7D}{2A}$

e) $z = \frac{4B+9a}{3}$

h) $c = T + H + t$

k) $s = \frac{5N+3S-11c}{4}$

n) $x = uA$

q) $v = 6/8$

t) $v = -\frac{5}{12}$

c) $v = 9 - c$

f) $v = \frac{7T-5c}{6}$

i) $v = 11N - 5C - 8t$

l) $x = 18$

o) $v = \frac{24ej}{11}$

r) $t = \frac{A}{q}$

2) Make the letter in brackets the subject of the formula

a) $8 = 5y$ (y)

c) $x - a = 10$ (x)

e) $8t - 2c = 3D$ (t)

g) $9c^2 + 3y = 4N^2$ (y)

i) $a + 2s - 11W = 6D$ (a)

b) $5Nt = 11B$ (t)

d) $6b + v = 11D$ (v)

f) $11A = 12s - t$ (s)

h) $s + c + B = P$ (c)

j) $7H + v - 2x = 3r$ (v)

k) $7s - 11a = 7r + 12A$ (s)

m) $\frac{4a}{5} = 3$ (a)

o) $\frac{c}{8s} = g$ (c)

l) $10 = \frac{v}{8}$ (v)

n) $\frac{x}{T} = g$ (x)

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2) a) $y = \frac{8}{5}$

d) $v = 11D - 6b$

b) $t = \frac{11B}{5N}$

e) $t = \frac{3D+2c}{8}$

c) $x = 10 + a$

f) $s = \frac{11A+t}{12}$

$$g) y = \frac{4N^2 - 9c^2}{3}$$

$$j) v = 3r - 7H + 2x$$

$$m) a = \frac{15}{4}$$

$$h) c = P - B - s$$

$$k) s = \frac{7r+12A+11a}{7}$$

$$n) x = Tg$$

$$i) a = 6D + 11W - 2s$$

$$l) v = 80$$

$$o) c = \frac{8Sg}{1}$$

3) Make the letter in brackets the subject of the formula

$$a) 9t + y = 7C - 10A \quad (y)$$

$$c) 11 = \frac{a}{8} \quad (a)$$

$$e) 10g = \frac{3y}{4W} \quad (y)$$

$$g) r = T(c + d) \quad (c)$$

$$i) \sqrt{11c + 3} = 2 \quad (c)$$

$$j) V = \sqrt{m + v} \quad (v)$$

$$l) y^2 - 2 = 33 \quad (y)$$

$$b) 7b - 11a = 2V - 7B \quad (b)$$

$$d) 2 = \frac{11s}{9} \quad (s)$$

$$f) \frac{p}{2y} + 9P = 7A \quad (y)$$

$$h) 3 = \sqrt{7x} \quad (x)$$

$$j) V = \sqrt{m + v} \quad (v)$$

$$k) d = 20s^2 \quad (s)$$

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$$3) a) y = 7C - 10A - 9t$$

$$d) s = \frac{18}{11}$$

$$g) c = \frac{r-Td}{T}$$

$$j) v = V^2 - m$$

$$b) b = \frac{2V-7B+11a}{7}$$

$$e) y = \frac{40Wg}{3}$$

$$h) x = \frac{9}{7}$$

$$k) s = \sqrt{\frac{d}{20}}$$

$$c) a = 88$$

$$f) y = \frac{p}{14A-18P}$$

$$i) c = \frac{1}{11}$$

$$l) y = \sqrt{35}$$

4) Make the letter in brackets the subject of the formula

$$a) -3G + 8y + a = 10B \quad (a)$$

$$d) 5 = \frac{8z}{11} \quad (z)$$

$$e) \frac{7y}{11d} = 8H \quad (y)$$

$$g) T(v - C) = k \quad (v)$$

$$i) \sqrt{2x + 3} = 8 \quad (x)$$

$$b) 5s - 11c = 5m - 6u \quad (s)$$

$$c) 11 = \frac{v}{5} \quad (v)$$

$$f) 4k = \frac{5n}{6t} + 7S \quad (t)$$

$$h) 8 = \sqrt{7y} \quad (y)$$

$$j) -r = \sqrt{-g - b} \quad (b)$$

$$k) k = 57s^2 \quad (s)$$

$$l) -25 + z^2 = 29 \quad (z)$$

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$$4) a) a = 10B + 3G - 8y$$

$$c) v = 55$$

$$e) y = \frac{88dH}{7}$$

$$g) v = \frac{k+TC}{T}$$

$$i) x = \frac{61}{2}$$

$$b) s = \frac{5m-6u+11c}{5}$$

$$d) z = \frac{55}{8}$$

$$f) t = \frac{5n}{24k-42S}$$

$$h) y = \frac{64}{7}$$

$$j) b = -g - r^2$$

k) $s = \sqrt{\frac{k}{57}}$

l) $z = \sqrt{54}$