

KS3 – Formulae

Section A – One-Step Rearranging

Q1 (4 marks)

Make the letter shown in brackets the subject of each formula.

a) $y = x + 6$ (x)

b) $p = q - 4$ (q)

c) $a = 5b$ (b)

d) $m = n \div 7$ (n)

Q2 (4 marks)

Make the letter shown in brackets the subject of each formula.

a) $y = x - 9$ (x)

b) $c = d + 12$ (d)

c) $p = 8q$ (q)

d) $r = s \div 5$ (s)

Q3 (3 marks)

Rearrange each formula to make the letter in brackets the subject.

a) $A = bh$ (h)

b) $d = st$ (t)

c) $C = 4n$ (n)

Challenge

Q4 (3 marks)

Rearrange each formula to make the letter in brackets the subject.

a) $y = -3x$ (x)

b) $p = q \div 4$ (q)

c) $a = -5b$ (b)

Section B – Two-Step Rearranging

Q5 (3 marks)

Make x the subject of each formula.

a) $y = 2x + 5$

b) $y = 3x - 4$

c) $y = 5x + 7$

Q6 (3 marks)

Make x the subject of each formula.

a) $y = 4x - 9$

b) $y = 6x + 11$

c) $y = 8x - 3$

Q7 (3 marks)

Make the letter shown in brackets the subject of each formula.

a) $P = 2l + 6$ (l)

b) $C = 5n - 8$ (n)

c) $v = 3u + 10$ (u)

Q8 (3 marks)

Make the letter shown in brackets the subject of each formula.

a) $y = (x + 4) \div 3$ (x)

b) $p = (q - 5) \div 2$ (q)

c) $a = (b + 7) \div 4$ (b)

Challenge

Q9 (3 marks)

Make x the subject of each formula.

a) $y = 7 - 2x$

b) $y = 10 - 5x$

c) $y = 4 - 3x$

Section C – Multi-Step Rearranging

Q10 (3 marks)

Make the letter shown in brackets the subject of each formula.

a) $P = 2l + 2w$ (l)

b) $v = u + at$ (a)

c) $C = 2\pi r$ (r)

Q11 (3 marks)

Make the letter shown in brackets the subject of each formula.

a) $A = (a + b)h \div 2$ (h)

b) $s = (u + v)t \div 2$ (t)

c) $V = lwh$ (h)

Q12 (3 marks)

Make x the subject of each formula.

a) $y = 3(x + 4)$

b) $y = 5(x - 2)$

c) $y = 4(2x + 1)$

Q13 (3 marks)

Make the letter shown in brackets the subject of each formula.

a) $p = 3q + 2r$ (q)

b) $A = 2x + 5y$ (x)

c) $m = 4n - 3p$ (n)

Challenge

Q14 (4 marks)

The formula for the area of a trapezium is $A = (a + b)h \div 2$.

Make a the subject of the formula.

Q15 (4 marks)

The formula $v^2 = u^2 + 2as$ connects five quantities.

Make s the subject of the formula.

Total: ____ / 49

Percentage: ____%