

Formulae (Changing The Subject/Re-arranging the Formula)

When you are given a formula, such as $a = b + c$, you may be asked to **change the subject** of the formula to, say b . This involves taking your time and, line by line, adjusting the formula so as to end up with $b = a - c$. Sometimes the process can be completed in just one line, but more often it takes 2, 3 or even 4 lines of working.

Examples :- Change the subject of the formula to the letter shown in the bracket.

1. $x + y = z$ to (x)
 $x = z - y$ change side, change sign

2. $c = d + e$ to (e)
 $d + e = c$ common sense swap sides
 $e = c - d$ change side, change sign

3. $w = \frac{p}{q}$ to (p)
 $\frac{w}{1} = \frac{p}{q}$ set up
 $p = wq$ cross multiply

4. $R = ST$ to (T)
 $ST = R$ common sense swap sides
 $T = \frac{R}{S}$ divide by S

5. $2x + n = m$ to (x)
 $2x = m - n$ change side, change sign
 $x = \frac{(m-n)}{2}$ divide by 2