

CHANGING THE SUBJECT

I like to think of these things as “doing it in reverse”. If you “reverse” BODMAS to the required term, it will end up “on its own”.

Example 1: change the subject of $y = 3x + 7$ to “ x ”

First of all x is multiplied by 3, then 7 is added

In reverse we subtract 7, divide by 3 (In that order...reverse BODMAS) to get $x = \frac{y-7}{3}$

Example 2: change the subject of $V = \frac{a^2}{5}$ to “ a ”

First of all a is squared, then it is divided by 5

In reverse we multiply by 5 then take a square root (In that order) to get $a = \sqrt{5V}$

Now try to change the subject of all of these to x

1	$A = x - 2$	2	$B = 2x + 1$	3	$C = \frac{2x}{3}$
4	$D = ax + 7$	5	$E = \frac{x}{5} + 2c$	6	$F = 3a + 2x$
7	$G = \pi x + 7a$	8	$H = \sqrt{x}$	9	$J = 3x^2$
10	$K = \frac{x^2}{10}$	11	$L = \sqrt{x - 5}$	12	$M = \frac{3}{5}x^2$

SOLUTIONS

$x = A + 2$	$x = \frac{B - 1}{2}$	$x = \frac{3C}{2}$
$x = \frac{D - 7}{a}$	$x = 5(E - 2c)$	$x = \frac{F - 3a}{2}$
$x = \frac{G - 7a}{\pi}$	$x = H^2$	$x = \sqrt{\frac{J}{3}}$
$x = \sqrt{10K}$	$x = L^2 + 5$	$x = \sqrt{\frac{5M}{3}}$