# Manipulation of Formula Worked Examples - Advanced

**Example 1**

Consider m≠0. Make v the subject of the expression:

K = mv2

mv2 = K

mv2 = 2K Multiply both sides by 2

v2 = Divide both sides by m

v = Square root both sides

**Example 2**

Make b the subject of the expression:

=

=

= Square both sides

Cross multiply to obtain:

(a + 2b) = (a – 2b)

a + 2b = a - 2b Removing the brackets

2b+ 2b = a - a Bring the b elements to one side of the expression

2b(+ ) = a( - Isolate the 2b and the a

b = Divide both sides by 2(+ )