Chapter 14

Factorisation

PRODUCTS WITH DIFFERENT SIGNS:

Consider the following products,

$(iii)\ (x-2)(x+3)=x^2+x-6$ $(iv)\ (x+2)(x-3)=x^2-x-6$

Step (I):

The product $ab=B$ is negative.

Therefore, a and b have different signs, one of them plus and the other minus, depending on the sign of 'A'(the coefficient of x).

In both (iii) and (iv), the product $ab=B=(-6)$ is negative.

Step (II):

Case (I):

If 'A' is positive, that is A > 0. Hence, the greater of 'a' and 'b' is positive. So,

In (iii), 'A' is (1), therefore positive, that is A > 0. Hence the greater of 'a' and 'b' is positive. So, a = 3 and b = (-2).

Case (II):

If 'A' is negative, that is A < 0. Hence, the greater of 'a' and 'b' is negative.

In (iv), ‘A’ is (-1),

therefore negative, that is A < 0. Hence

the greater of ‘a’ and ‘b’ is negative. So,

$a = (-3)$ and $b = 2$.

Factor of 6	Their Sum
6 = 1 x 6	1 + 6 = 7
6 = 2 x 3	2 + 3 = 5
6 = -2 x -3	-2 -3 = -5

Factor of -6	Their Sum
-6 = -1 x 6	-1 + 6 = 5
-6 = -2 x 3	-2 + 3 = 1
-6 = -2 x -3	-3 + 2 = -1