

## Factoring trinomials

Q1: Factor the Following trinomial

$$\mathbf{x^2 + 6x + 8}$$

Now let's factor the trinomial:

**Step 1: Identify the values for b and c.**

In this example,  $b =$      and  $c =$

**Step 2: Find two numbers that ADD to b and MULTIPLY to c.**

This step can take a little bit of trial-and-error.

For instance, you could pick 5 and 1 because  $5+1=6$ . But  $5 \times 1$  does not equal 8, so these numbers would not work.

However, if you chose     and     , you can easily confirm that:

$$+ \quad = 6 \text{ (the value of } b\text{); and}$$

$$\times \quad = 8 \text{ (the value of } c\text{)}$$

**Step 3: Use the numbers you picked to write out the factors and check**

For this Question , the factors would be     and