

Worksheet (4) | Lower Secondary Stage (6-8)

1st Semester | 2023-2024

Name:
Date: / /

Subject: math
Class: Grade 8

Subject: **Factoring Trinomials**

Date :

Factoring a Trinomial when a=1

$$x^2 + 6x + 8$$
$$(x+4)(x+2)$$

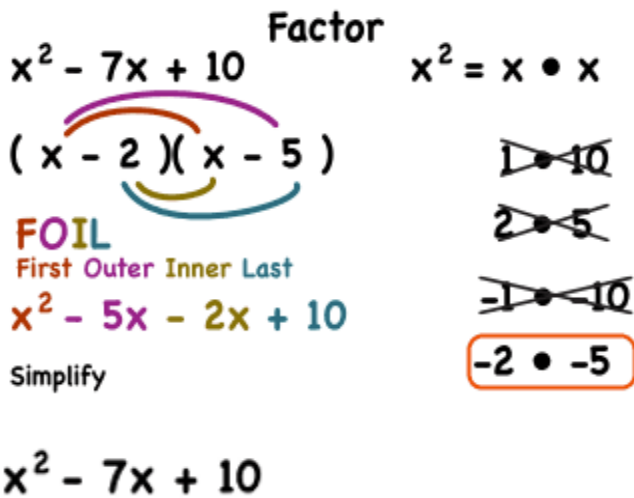
Factor

$$x^2 - 7x + 10 \quad x^2 = x \cdot x$$
$$(x - 2)(x - 5)$$

FOIL
First Outer Inner Last

$$x^2 - 5x - 2x + 10$$

Simplify

$$x^2 - 7x + 10$$


Exercise : Factorise each of the following expressions completely:

1 $x^2 + 2x - 24$

2 $y^2 + 3y - 10$

3 $x^2 + 29x + 100$

4 $w^2 - 6w + 8$

5 $-10q + q^2 + 21$

6 $y^2 + 20y + 100$

7 $a^2 + 5a + 6$

8 $w^2 - 9w - 10$

9 $x^2 + x - 30$

10 $13y + 30 + y^2$

11 $w^2 + 11w + 18$

12 $t^2 - t - 90$

$$13 \quad f^2 + 22f + 21$$

$$14 \quad h^2 - h - 72$$

$$15 \quad m^2 - 18m + 81$$

$$16 \quad x^2 + x - 72$$

$$17 \quad x^2 - 8x - 9$$

$$18 \quad x^2 + 2x - 48$$

Example (1):

$$x^2 + 7x + 12 =$$

$$(x+3)(x+4)$$

Example (2):

$$x^2 - 10x + 16 =$$

$$(x-2)(x-8)$$

Example (3):

$$x^2 + x - 20 =$$

$$(x-4)(x+5)$$