Name: **Worksheet(5)**   **Grade:8(A, B)**

Subject: Factorising using Difference of two squares

Date :

Difference of Two Squares

Difference of two squares is a type of quadratic factorisation used when an algebraic expression is made up of a squared term subtracted from another squared term.

To factorise expressions in the form $a^2 - b^2$ we need **double brackets.**

Factorising

$$a^2 - b^2 = (a + b)(a - b)$$

Expanding brackets

THIRD SPACE LEARNING

Factor Difference of Perfect Squares

$$a^2 - b^2 = (a+b)(a-b)$$

Examples:

$16x^2 - 25$
$= (4x)^2 - 5^2$
$= (4x+5)(4x-5)$

$3x^2 - 75y^2$
$= 3(x^2 - 25y^2)$
$= 3(x^2 - (5y)^2)$
$= 3(x+5y)(x-5y)$

1 $u^2 - 64$

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2 $\dfrac{1}{9}x^2 - \dfrac{1}{25}$

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3 $36y^2 - 1$

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4 $v^4 - 625r^2$

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5 $a^2 - w^2 z^2$

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6 $-16y^2 + 49$

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7 $ab^2 - 100a$ **8** $x - x^3$

1 $a^2 - 49$

2 $100 - w^2$

3 $9y^2 - 36$

4 $x^2 y^2 - 64$

5 $r^2 - 0.36m^2$

6 $24c^2 - 6$

7 $5y^3 m - 45ym^3$

8 $w^4 - k^4$

9 $-y^2 + 144x^2$

10 $\dfrac{1}{16} y^2 - \dfrac{4}{9}$

11 $xb^2 - x^3 + y^2 b^2 - y^2 x^2$