

Name: Answer Key

Date \_\_\_\_\_

**Topic : Addition and Subtraction of Polynomials - Worksheet 1**

**Add or subtract the polynomials**

1.  $(5x + 2) + (4x + 5)$

$$5x + 2 + 4x + 5$$

$$5x + 4x + 2 + 5$$

$$\boxed{9x + 7}$$

3.  $(3x + 3) + (4x - 2)$

$$3x + 3 + 4x - 2$$

$$3x + 4x + 3 - 2$$

$$\boxed{7x + 1}$$

5.  $(4x^2 + x) - (x^2 + 2x)$

$$(4x^2 + x) + (-x^2 - 2x)$$

$$4x^2 + x - x^2 - 2x$$

$$4x^2 - x^2 + x - 2x$$

$$\boxed{3x^2 - x}$$

7.  $(6x + 3) + (2x + 5)$

$$6x + 3 + 2x + 5$$

$$6x + 2x + 3 + 5$$

$$\boxed{8x + 8}$$

9.  $(8x^2 + 4x) - (2x^2 + 5x)$

$$(8x^2 + 4x) + (-2x^2 - 5x)$$

$$8x^2 - 2x^2 + 4x - 5x$$

$$\boxed{6x^2 - x}$$

$$(7x^2 + 4x) + (-2x + 4x)$$

2.  $(7x^2 + 4x) - (2x - 4x)$

$$7x^2 + 4x - 2x + 4x$$

$$\boxed{7x^2 + 6x}$$

$$(4x + 3) + (-5x - 9)$$

4.  $(4x + 3) - (5x + 9)$

$$4x + 3 - 5x - 9$$

$$4x - 5x + 3 - 9$$

$$\boxed{x - 6}$$

6.  $9x^2 - 5x^2$

$$\boxed{4x^2}$$

8.  $(3x + 3) + (4x - 5)$

$$3x + 3 + 4x - 5$$

$$3x + 4x + 3 - 5$$

$$\boxed{7x - 2}$$

10.  $(4x^2 + 4x) + (6x^2 + x)$

$$4x^2 + 4x + 6x^2 + x$$

$$4x^2 + 6x^2 + 4x + x$$

$$\boxed{10x^2 + 5x}$$



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**Topic: Addition and Subtraction of Polynomials - Worksheet 2**

**Add or subtract the polynomials**

1.  $(4x + 1) + (6x + 7)$

$$4x + 1 + 6x + 7$$

$$4x + 6x + 1 + 7$$

$$\boxed{10x + 8}$$

2.  $(5x^2 + 2x) - (3x - 5x)$

$$(5x^2 + 2x) + (-3x + 5x)$$

$$5x^2 + 2x - 3x + 5x$$

$$\boxed{5x^2 + 4x}$$

3.  $(2x + 4) + (5x - 1)$

$$2x + 4 + 5x - 1$$

$$2x + 5x + 4 - 1$$

$$\boxed{7x + 3}$$

4.  $(6x + 4) - (2x + 4)$

$$(6x + 4) + (-2x - 4)$$

$$6x + 4 - 2x - 4$$

$$6x - 2x + 4 - 4$$

$$\boxed{4x}$$

5.  $(8x^2 + x) - (x^2 + 3x)$

$$(8x^2 + x) + (-x^2 - 3x)$$

$$8x^2 + x - x^2 - 3x$$

$$8x^2 - x^2 + x - 3x$$

$$\boxed{7x^2 - 2x}$$

6.  $4x^2 - 3x^2$

$$\boxed{x^2}$$

7.  $(5x + 2) + (7x + 3)$

$$5x + 2 + 7x + 3$$

$$5x + 7x + 2 + 3$$

$$\boxed{12x + 5}$$

8.  $(4x + 2) + (2x - 4)$

$$4x + 2 + 2x - 4$$

$$4x + 2x + 2 - 4$$

$$\boxed{6x - 2}$$

9.  $(7x^2 + 2x) - (4x^2 + 7x)$

$$(7x^2 + 2x) + (-4x^2 - 7x)$$

$$7x^2 + 2x - 4x^2 - 7x$$

$$7x^2 - 4x^2 + 2x - 7x$$

$$\boxed{3x^2 - 5x}$$

10.  $(2x^2 + 4x) + (3x^2 + 2x)$

$$2x^2 + 4x + 3x^2 + 2x$$

$$2x^2 + 3x^2 + 4x + 2x$$

$$\boxed{5x^2 + 6x}$$

