

Station 1:

Name each polynomial by degree and number of terms.

1) $2p^4 + p^3$

quartic binomial

3) $2x^2$

quadratic monomial

5) $-5n^4 + 10n - 10$

quartic trinomial

7) $6n$

linear monomial

9) $-9n + 10$

linear binomial

11) $8p^5 - 5p^3 + 2p^2 - 7$

quintic polynomial
w/4 terms

13) $-8n^4 + 5n^3 - 2n^2 - 8n$

quartic polynomial
w/4 terms

15) $9x^2 + 3x$

quadratic binomial

2) $-10a$

linear monomial

4) $-10k^2 + 7$

quadratic binomial

6) $-6a^4 + 10a^3$

quartic binomial

8) 1
constant monomial

10) $5a^2 - 6a$

quadratic binomial

12) $-7n^7 + 7n^4$

seventh degree binomial

14) $9v^7 + 7v^6 + 4v^3 - 1$

seventh degree polynomial w/4 terms

16) -6

constant monomial

Station 2:

Simplify each expression.

$$10) (4m^4 - m^2) + (5m^2 + m^4)$$

$$5m^4 + 4m^2$$

$$11) (5x + x^4) - (3x^4 + 4x)$$

$$-2x^4 + x$$

$$12) (5 + 7x^3 + 3x^2) + (-12 + 5x + 6x^2)$$

$$7x^3 + 9x^2 + 5x - 7$$

$$13) (4 + 3x^2 + 8x^3) + (-7x^3 + 12x^5 + 6x^2)$$

$$12x^5 + x^3 + 9x^2 + 4$$

$$14) (13m^4 + 2) + (m^4n^2 + 2 - 2m^4) - (-13m^2n^3 + 5m^4)$$

$$m^4n^2 + 13m^2n^3 + 6m^4 + 4$$

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Simplify each expression.

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$$11) (5x + x^4) - (3x^4 + 4x)$$

$$12) (5 + 7x^3 + 3x^2) + (-12 + 5x + 6x^2)$$

$$13) (4 + 3x^2 + 8x^3) + (-7x^3 + 12x^5 + 6x^2)$$

$$14) (13m^4 + 2) + (m^4n^2 + 2 - 2m^4) - (-13m^2n^3 + 5m^4)$$

Station 3:

Multiply each polynomial

$$17) (6k + 5)(5k + 5)$$

$$30k^2 + 55k + 25$$

$$18) (3x - 4)(4x + 3)$$

$$12x^2 - 7x - 12$$

$$19) (4a + 2)(6a^2 - a + 2)$$

$$24a^3 + 8a^2 + 6a + 4$$

$$20) (7k - 3)(k^2 - 2k + 7)$$

$$4k^3 - 17k^2 + 55k - 21$$

$$21) (7r^2 - 6r - 6)(2r - 4)$$

$$14r^3 - 40r^2 + 12r + 24$$

$$22) (n^2 + 6n - 4)(2n - 4)$$

$$2n^3 + 8n^2 - 32n + 16$$

Station 3:

Multiply each polynomial

$$17) (6k + 5)(5k + 5)$$

$$18) (3x - 4)(4x + 3)$$

$$19) (4a + 2)(6a^2 - a + 2)$$

$$20) (7k - 3)(k^2 - 2k + 7)$$

$$21) (7r^2 - 6r - 6)(2r - 4)$$

$$22) (n^2 + 6n - 4)(2n - 4)$$

Station 4:

Multiply each polynomial

$$7) (x - 5)(x + 5)$$

$$x^2 - 25$$

$$8) (n - 5)^2$$

$$n^2 - 10n + 25$$

$$9) (2k^2 + 1)^2$$

$$4k^4 + 4k^2 + 1$$

$$10) (8a^2 + 4)(8a^2 - 4)$$

$$64a^4 - 16$$

$$11) (2 + 5n^2)^2$$

$$4 + 20n^2 + 25n^4$$

$$12) (3x - 7)(3x + 7)$$

$$9x^2 - 49$$

Station 4:

Multiply each polynomial

$$7) (x - 5)(x + 5)$$

$$8) (n - 5)^2$$

$$9) (2k^2 + 1)^2$$

$$10) (8a^2 + 4)(8a^2 - 4)$$

$$11) (2 + 5n^2)^2$$

$$12) (3x - 7)(3x + 7)$$

Station 5:

Write each polynomial in standard form. Then name each polynomial based on its degree and number of terms.

1. $2x^3 - x^2 + 4x$

$2x^3 - x^2 + 4x$
cubic trinomial

3. $8 - 6w - 12w - 8w^2 - 7 - 3w^3$

$-3w^3 - 8w^2 - 18w + 1$
cubic polynomial

2. $y^2 + 3y + 6 - 4y^2 - 6y$

$-3y^2 - 3y + 6$
Quadratic trinomial

4. $6x^5 + 3x^3 - 7x^5 - 4x^3$

$-x^5 - x^3$
5th degree binomial

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Write each polynomial in standard form. Then name each polynomial based on its degree and number of terms.

1. $2x^3 - x^2 + 4x$

2. $y^2 + 3y + 6 - 4y^2 - 6y$

3. $8 - 6w - 12w - 8w^2 - 7 - 3w^3$

4. $6x^5 + 3x^3 - 7x^5 - 4x^3$

Station 5:

Write each polynomial in standard form. Then name each polynomial based on its degree and number of terms.

1. $2x^3 - x^2 + 4x$

2. $y^2 + 3y + 6 - 4y^2 - 6y$

3. $8 - 6w - 12w - 8w^2 - 7 - 3w^3$

4. $6x^5 + 3x^3 - 7x^5 - 4x^3$