

ADDING POLYNOMIALS

1. $(8y^2 - 4y + 5) + (y^2 + 5y - 3)$

2. $(3x^2 + 4x - 10) + (4x^2 + 2x - 7)$

3. Add $(2x + 5)$ and $(3x - 6)$ and $(5x - 3)$.

4. Find the sum of $(-7x^5 - x^3 + 4)$ and $(2x^3 + 12x^5 - 5)$



ADDING POLYNOMIALS ANSWERS

1. $9y^2 + y + 2$

2. $7x^2 + 6x - 17$

3. $10x - 4$

4. $5x^5 + x^3 - 1$

SUBTRACTING POLYNOMIALS

1. $(9x^2 - 6x + 7) - (4x^2 - 6x + 1)$
2. $(-4x^2 - 8x - 5) - (3x^2 - 2x - 3)$
3. Subtract $(5x^3 + 7x^2 + 6)$ from $(8x^3 + 5x^2 - 9)$
4. From $(7x^4 - 8x^2)$, subtract $(4x^4 + x^2)$

SUBTRACTING POLYNOMIALS ANSWERS

1. $5x^2 + 6$

2. $-7x^2 - 6x - 2$

3. $3x^3 - 2x^2 - 15$

4. $3x^4 - 9x^2$

Factor out the GCF.

$$1. \quad 15x^2 - 35$$

$$2. \quad 18x^4 - 3x^3 + \underline{9x^2}$$

$$3. \quad 28a^4 + 7a^5 + 14a^6$$

$$4. \quad 2g^3 - 5g^4 + 6g^7$$

FACTOR OUT THE GCF ANSWERS

1. $5(3x^2 - 7)$

2. $3x^2(6x^2 - x + 3)$

3. $7a^4(4 + a + 2a^2)$

4. $g^3(2 - 5g + 6g^4)$

MULTIPLYING POLYNOMIALS

$$1. \quad 4(2x^3 - 6x^2 + 7)$$

$$2. \quad 6x(x^2 + 5x - 9)$$

$$3. \quad 6s^3(7s^3 + 8s^2 + s)$$

$$4. \quad 7xy(7x^3y^2 + 6xy^7)$$

MULTIPLYING POLYNOMIALS ANSWERS

1. $8x^3 - 24x^2 + 28$

2. $6x^3 + 30x^2 - 54x$

3. $42s^6 + 48s^5 + 6s^4$

4. $49x^4y^3 + 42x^2y^8$

MULTIPLYING BINOMIALS

$$1. \quad (x + 8)(x + 4)$$

$$2. \quad (w - 6)(w - 7)$$

$$3. \quad (y + 3)(y - 9)$$

$$4. \quad (2x + 1)(3x + 6)$$

MULTIPLYING BINOMIALS ANSWERS

1. $x^2 + 12x + 32$

2. $w^2 - 13w + 42$

3. $y^2 - 6y - 27$

4. $6x^2 + 15x + 6$

MULTIPLYING BINOMIALS

$$1. \quad (x - 9)(x + 9)$$

$$2. \quad (b + 5)(b - 5)$$

$$3. \quad (m - 6)(m + 6)$$

$$4. \quad (x + 2)(x - 2)$$

MULTIPLYING BINOMIALS ANSWERS

1. $x^2 - 81$

2. $b^2 - 25$

3. $m^2 - 36$

4. $x^2 - 4$

FACTOR

$$1. \quad x^2 - 9$$

$$2. \quad s^2 - 36$$

$$3. \quad 25x^2 - 49y^2$$

$$4. \quad 64 - x^2$$



FACTOR ANSWERS

1. $(x - 3)(x + 3)$

2. $(s - 6)(s + 6)$

3. $(5x - 7y)(5x + 7y)$

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

FACTOR

$$1. \quad x^2 + 8x + 16$$

$$2. \quad b^2 - 2b - 3$$

$$3. \quad x^2 - 9x + 20$$

$$4. \quad x^2 + 5x - 14$$

FACTOR ANSWERS

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

2. $(b - 3)(b + 1)$

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

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

FACTOR COMPLETELY

$$1. \quad 2n^2 - 8n - 42$$

$$2. \quad 5c^2 + 15c - 50$$

$$3. \quad 3x^2 + 21x + 36$$

$$4. \quad 9x^2 + 27x - 36$$



FACTOR ANSWERS

1. $2(x - 7)(x + 3)$

2. $5(c + 5)(c - 2)$

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

4. $9(x + 4)(x - 1)$