

L 2 Monomial Operations

• Adding/ Subtracting:

Only like terms can be +/- (simplified to a single term)

- Non like terms cannot be simplified to a single term
- When you +/- terms, do it to the coefficients only.

• Multiplying/ Dividing:

They don't have to be like terms.

• Multiplying: $(ax^m)(bx^n) = abx^{m+n}$

• Dividing: $\frac{ax^m}{bx^n} = \frac{a}{b}x^{m-n}$

Ex 1: Simplify the following monomials

$3x^2 + 4x^2$

Adding

$5x^3y^2 - 3x^3y^2$

$(2a)(5b)$

Multiplying

$4(1.5a)$

$\frac{12x^3y^4}{6x^2y^2}$

Dividing

Practice:
Handout 2.2
2.2 # 1-3
2.3 # 1-5



2.2 Monomial Operations

Remember:

- 1) Only like terms can be added or Simplified to a single term.
- 2) Non like terms cannot be simplified to a single term
- 3) When you add or simplify polynomials do it to the coefficients only
- 4) When multiplying monomials: $ax^m \cdot bx^n = abx^{m+n}$
- 5) When dividing monomials: $\frac{ax^m}{bx^n} = \frac{a}{b}x^{m-n}$

Exercise:

1] $x^2 + x^2 =$

2] $2x^3 + 3x^3 =$

3] $x^{-4} + x^4 =$

4] $2x + 4x =$

5] $14x + 7x^2 =$

6] $-6x + 3x =$

7] $-11x - 2x =$

8] $5x^2 - 3x^2 =$

9] $5x^2 - 2x^2 =$

10] $\frac{1}{2}x + \frac{1}{2}x =$

11] $\frac{2}{5}x + \frac{3x}{5} =$

12] $0.37y^2 + 0.11y^2 =$

13] $-2 \times 3 =$

14] $-2a \times 3 =$

15] $(-2a)(3a) =$

16] $(4x)(4x) =$

17] $(7y)(3xy) =$

18] $(-3ab)(4a^2bc) =$

19] $4a(-5a) =$

20] $3c(2d) =$

21] $-2(4xy) =$

22] $-(-2a) =$

23] $\frac{6x^2y}{3xy} =$

24] $\frac{16x^2}{24x^2} =$

25] $\frac{12x^4}{3x} =$

26] $\frac{10x^2}{5x^3} =$

NOT a MONOMIAL