

Warm Up:

A. Polynomials

Monomials - a #, a variable, or the product of a # and variable. $3, a, 7a, 6a^2b$

Binomials - the sum/difference of 2 different terms
 $3x + 4$

Trinomials - the sum/difference of 3 different terms
 $3x^2 + 4x - 5$

Polynomials - the sum/difference of many different terms

Standard Form - to express from highest exponent to lowest (descending order)

B. Distributive Property - Simplify each expression and express in standard form

<p>1. $12x(12x + 11)$</p> $144x^2 + 132x$	<p>2. $9x(4x + 2)$</p> $36x^2 + 18x$
<p>3. $x(9x^2 + 4x + 3)$</p> $9x^3 + 4x^2 + 3x$	<p>4. $8x(2x + 7)$</p> $16x^2 + 42x$
<p>5. $4x(-8x - 9)$</p> $-32x^2 - 36x$	<p>6. $5x(-6x - 3)$</p> $-30x^2 - 15x$
<p>7. $11x(-5x^3 + 8x^2 + 9x + 8)$</p> $-55x^4 + 88x^3 + 99x^2 + 88x$	<p>8. $-9x(-3x^2 + 9x + 11)$</p> $27x^3 - 81x^2 - 99x$

9. $-4x(8x - 5)$

$$-32x^2 + 20x$$

10. $-3x(-4x^2 - 10x + 12)$

$$12x^3 + 30x^2 - 36x$$

11. $-2x(11x^3 - 10x^2 + 4x + 6)$

$$-22x^4 + 20x^3 - 8x^2 - 12x$$

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

$$-9x^3 + 7x^2 + 4x$$

13. $6x(11x + 7y)$

$$66x^2 + 42xy$$

14. $-11xy(2x - 3y)$

$$-22x^2y + 33xy^2$$

15. $9x^2(-7x + 2)$

$$-63x^3 + 18x^2$$

16. $-7x(5x^2 + 10y^2)$

$$-35x^3 - 70xy^2$$

17. $-10x(-9x - 5)$

$$90x^2 + 50x$$

18. $-3x(7x + 8y - 5z)$

$$-21x^2 - 24xy + 15xz$$

19. $6x^2(-5x + 4)$

$$-30x^3 + 24x^2$$

20. $11x^2(7x^2 - 4x)$

$$77x^4 - 44x^3$$