

February 4thDue Today: VN+ HW7.1
Due Next Class: HW 7.2**Unit 7: Polynomials****Lesson 7.2: Multiplying and Dividing Polys****Check your HW:**

- | | | | |
|---|------------------------|--|-------------------|
| 1) $4r^3 + 3r^2 - 2r$ | 2) $3b^3 + 2b^2 + 4$ | 3) $-2a^2 + a$ | 4) $n^3 - 2n + 1$ |
| 5) $5x^4 + 12x^3 + 2x^2 - 1$ | 6) $3p^3 + p^2 - 5p$ | 7) $9k^5 + 15k^4 + k^3 + 6$ | |
| 8) $2p^5 - 7p^4 - 9p^2 + 3p$ | 9) quadratic trinomial | 10) 5 term sextic | |
| 11) quintic monomial | 12) cubic binomial | 13) $-10n^2 - 4n - 1$ | |
| 14) $-x^6 - 5x^4 - x^3 - 9x^2 - 7x + 2$ | | 15) $5v^6 + 8v^4 + 6v^3 - 9v^2 - 6v + 9$ | |
| 16) $-3n^3 - 10n^2 - 1$ | | | |

HW Review

DEGREE	NAME
0	Constant
1	Linear
2	quadratic
3	Cubic
4	Quartic
5	Quantic
6	Sextic
7	Septic
8	Octic
9	Nonic
10	Decic
12	Dodeci

# of TERMS	NAME
1	Monomial
2	Binomial
3	Trinomial
4 or More	n term Polynomial

MULTIPLYING POLYS

Monomial * Monomial = just exponent multiplication

$$(5a^2) * (-2a^5)$$

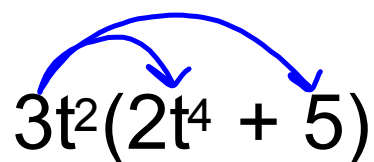


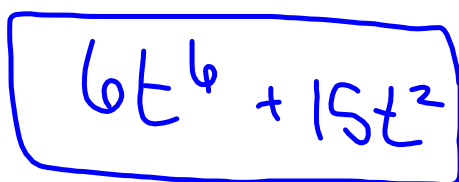
$-10a^7$

MULTIPLYING POLYS

Monomial * Binomial = distribute!

Tri/4/5/6


$$3t^2(2t^4 + 5)$$


$$6t^6 + 15t^2$$

MULTIPLYING POLYS

Binomial * Binomial = double distribute / 2x2 box method

$$(2x + 5)(x - 1)$$

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

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

$$(2x + 5)(x - 1)$$

	$2x$	$+5$	
x	$2x^2$	$5x$	$3x$
-1	$-2x$	-5	

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

$$\underline{B_i \times B_i}$$

$$(x+3)(2x-5) \neq 2x^2 - 15$$

$$(x+3)^2 \neq x^2 + 9$$
$$= (x+3)(x+3)$$

MULTIPLYING POLYS

Binomial * Trinomial

=double- triple distribute
or 2x3 box method

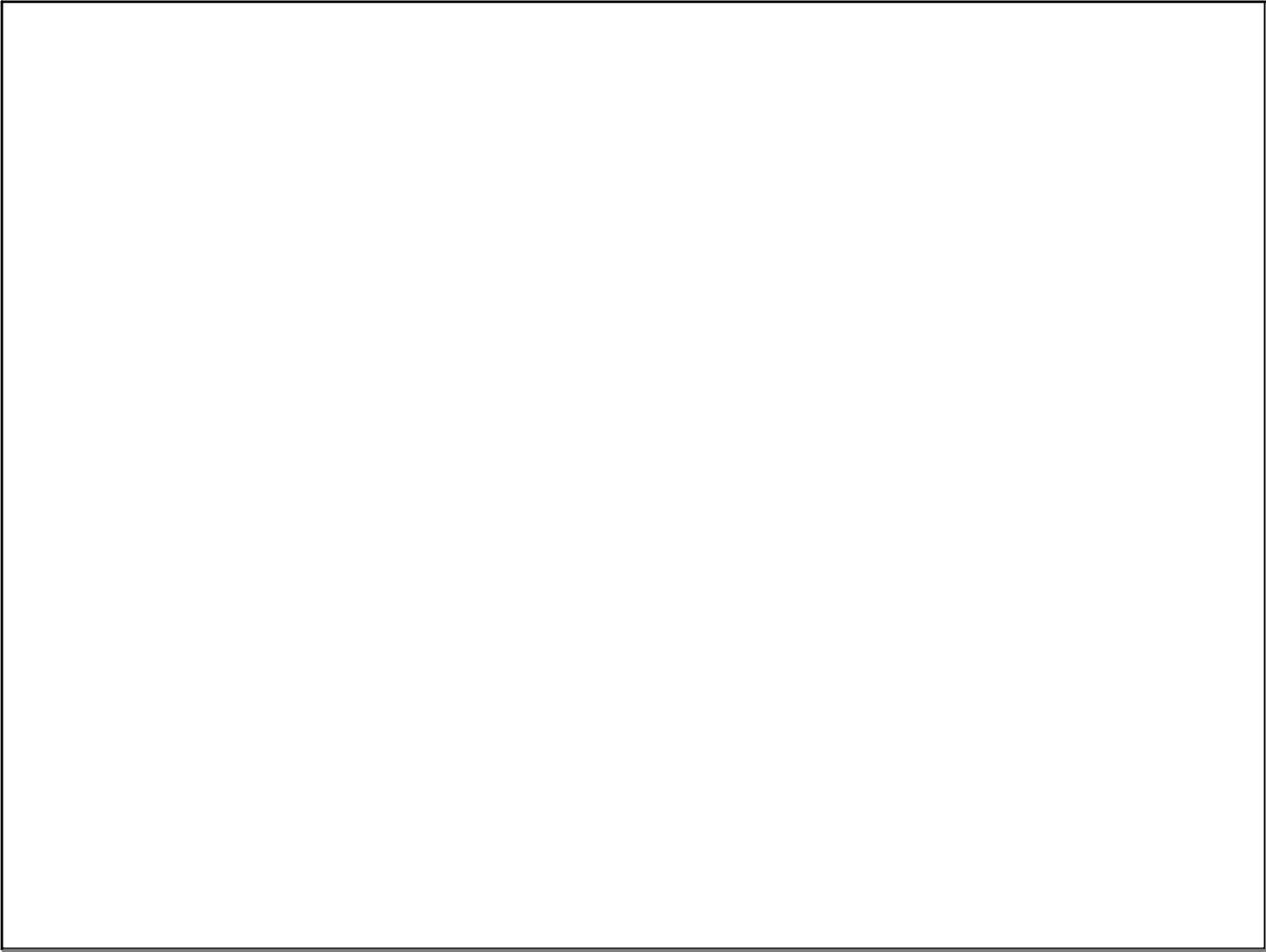
$$(a + 2)(a^2 + 3a - 4)$$

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

$$a^3 + 5a^2 + 2a - 8$$

	a	$+2$	
a^2	a^3	$2a^2$	$5a^2$
$3a$	$3a^2$	$6a$	$2a$
-4	$-4a$	-8	

$$a^3 + 5a^2 + 2a - 8$$



DIVIDING POLYS

Polynomial ÷ monomial = Divide EVERY term of the POLY by the monomial!

$$(25k^9 - 40k^5 + 20k^2) \div 5k^2$$

$$\frac{25k^9}{5k^2} \quad \frac{-40k^5}{5k^2} \quad \frac{+20k^2}{5k^2}$$

$$5k^7 - 8k^3 + 4$$

DIVIDING POLYS

$$\frac{24t^5 - 12t^2 + 10t}{6t}$$

$$4t^4 - 2t + \frac{5}{3}$$

$$\frac{15p^5 + 3p^2 + 6}{3p^3}$$

$$\frac{\cancel{3}p^2}{\cancel{3}p^3} = \frac{\cancel{p}}{\cancel{p}p} = \frac{1}{p}$$

$$5p^2 + \frac{1}{p} + \frac{2}{p^3}$$

$$5p^2 + p^{-1} + 2p^{-3}$$

Practice:

1) $3n(8n^2 - 3n - 7)$

2) $(7x + 3)(2x - 8)$

3) $(r + 6)(6r^2 + 2r + 5)$

4) $(6n^5 + 30n^4 + 18n^3) \div 6n^2$

5) $(45x^3 + 9x^2 + 27x) \div 9x^2$

6) $(16n^5 + 32n^4 + 32n^3) \div 8n^3$

7) $(6m - 6)(6m + 6)$

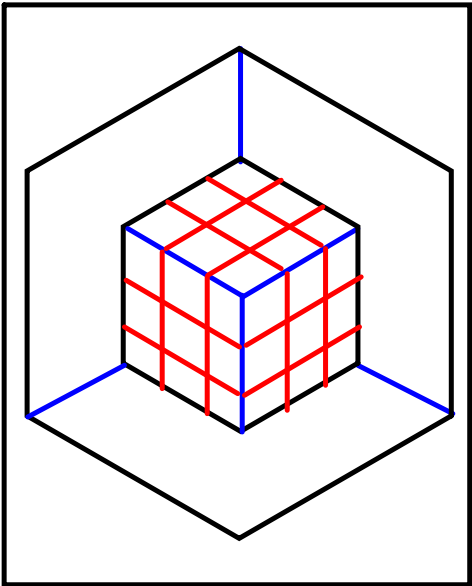
8) $(7x + 1)^2$

9) $3x(7x^2 - x - 8)$

10) *** $(x^2 - 8x + 3)(8x^2 + x + 4)$

Exit Ticket

Unit 7: Polynomials			
Lesson #	Name	Recap	HW
7.1	Adding and subtracting Polynomials		VN 7.1 HW 7.1
7.2	Multiplying and Dividing Polys		HW 7.2
7.3			



Attachments



Projectile Motion - Wile E Coyote.flv



Superman, get to the chopper!.mp4