Warm up!

Simplify and write in standard form. Then, classify each polynomial based on its degree and number of terms.

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

$5x^2 - 3x^3 - 12$

$-3x^3 + 5x^2 - 12$

cubic trinomial

2. $-5 + 3x^4 - 14 - 2x^4$

$x^4 - 19$

quartic binomial

Add or subtract the polynomials. Then write in standard form.

3. $(4x^5 - 2x^3 + 4) + (6x^2 - 4x^5 - 7x)$

$-2x^3 + 6x^2 - 7x + 4$

4. $(2x^2 - 5x) - (x^2 + 12x - x^2)$

$2x^2 - 5x - x^2 - 12x + x^2$

$2x^2 - 17x$

$\frac{x}{2}$

23, 39, 27

$$\frac{15n^3}{3n} - \frac{3n^2}{3n} + \frac{12n}{3n}$$

GCF: $3n$

$$3n(5n^2 - 1n + 4)$$

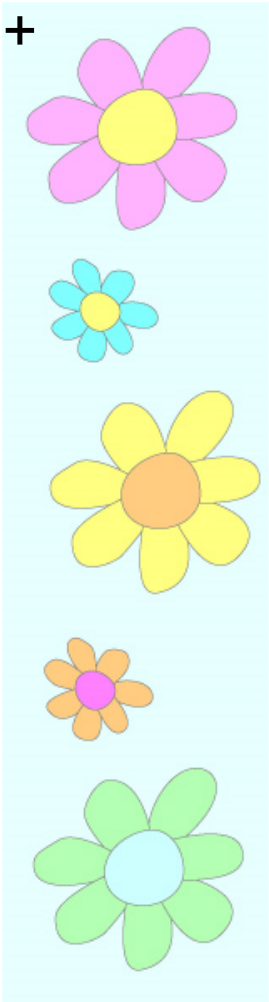
27 $-3a(4a^2 - 5a + 9)$

$$-12a^3 + 15a^2 - 27a$$

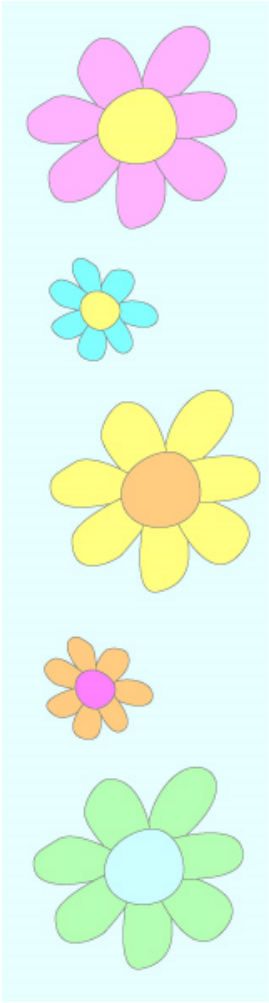
39 $$\frac{7g^2k^3}{7g^2k^2} - \frac{35g^5k^2}{7g^2k^2}$$

GCF: $7g^2k^2$

$$7g^2k^2(k - 5g^3)$$



Section 9.3
Multiplying Binomials



Using the "Box Method" to multiply

$$(5a+2)(6a-1) =$$

	$5a$	$+2$
$6a$	$30a^2$	$12a$
-1	$-5a$	-2

$$30a^2 + 7a - 2$$

Using the "Box Method" to multiply

Your Turn!

$$(3x-4)(2x-7)=$$

	$3x$	-4
$2x$	$6x^2$	$-8x$
-7	$-21x$	28

$6x^2-29x+28$

Using the Distributive Property . . .

"FOIL"

$$(2y+5)(y-3)=$$

First: $2y^2$

Outside: $-6y$

Inside: $5y$

Last: -15

$$2y^2-y-15$$

Your Turn!

Using the Distributive Property . . .
"FOIL"

$$(8r+2)(r+5)=$$

F $8r^2$

O $40r$

I $2r$

L 10

$8r^2+42r+10$

Multiply using whichever method you prefer...

$$(3k^2+2)(k+5k^2)=$$

$3k^3+15k^4+2k+10k^2$

$15k^4+3k^3+10k^2+2k$

What happens when there is a binomial times a trinomial?

$$(x+9)(x^2-4x+1)=$$

	x^2	$-4x$	$+1$
x	x^3	$-4x^2$	x
$+9$	$9x^2$	$-36x$	$+9$

Homework:

pg. 507 #5-19, 30-38

Quiz Wednesday on 9.1-9.3