Factoring Day 2

Agenda

Warm-Up

HW Spin

Notes

Flowchart

HW (2 pages)

Tutoring

Tues AM Tues PM

Wed AM Wed PM

Thurs AM

Fri AM

Reminders

Test Unit 8 (Factoring) FRIDAY

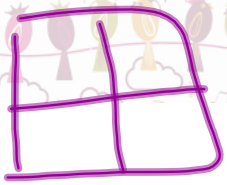
Last call for HW 5.2 and 5.3 - Friday

Turn in Practice: Factoring NOW or its late. All late assignments graded for accuracy.

Warm-Up Tuesday

1. Multiply (x-3)(x+7)

$x^2+4x-21$



2. Factor the GCF: $4 \mid 4x^3+16xy-8x^2y^2$

$x \mid x^3+4xy-2x^2y^2$

$1 \mid x^2+4y-2xy^2$

$4x(x^2+4y-2xy^2)$

Factoring Day 2

Good Luck!!

2nd - FREE
3rd - Accura
4th - Accu.
5th - Selected
7th - completion

Factoring Day 2

p. 103

Factor each of the following polynomials ~~completely~~.

- GCF
- factor what's left

1. $3x^2+3x-18$

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

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

2. $12x^2-33x-9$

$3(4x^2-11x-3)$

$-12x^2$, $1x$, $-12x$

$(4x^2+1x)(-12x-3)$

$x(4x+1)-3(4x+1)$

$3(4x+1)(x-3)$

3. $16x^2-100$

$4(4x^2-25)$

$4x^2+0x-25$

$-100x^2$, $-10x$, $10x$, $0x$

$2x-5$

$4x^2$, $-10x$, $10x$, -25

$4(2x-5)(2x+5)$

4. x^2+5x+7

$7x^2$, $5x$

PRIME

5. $200x^3-32x$

$8x(25x^2-4)$

$25x^2+0x-4$

$-100x^2$, $-10x$, $10x$, $0x$

$5x-2$

$25x^2$, $-10x$, $10x$, -4

$8x(5x-2)(5x+2)$

6. $-2x^3+4x^2+70x$

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Factor Flow Chart

List terms in order (highest exponent first)

Look for a Greatest Common Factor

YES → Factor the GCF out (put outside parenthesis

NO → Leave it alone

How many terms? (in parenthesis)

2 → Binomial → Add a term i.e 0x

3 → trinomial → Split the middle term (use the ac and bx)

4 → Four-Term Polynomial → Use the box or four term grouping

Write answer as a product

gcf(factor)(factor)

Questions to ask while factoring...

Is there a GCF? How many terms? What are a, b, and c? ax^2+bx+c

Does my answer multiply to make the original polynomial?

What adds to b and multiplies to ac?

Algebra I - Unit 8: Topic 1 – Factoring Day 2

Practice – Factoring Day 2 **pp 540-571**

Name _____ Date _____ Period _____

1. An arch frames the entrance into a garden. The shape of the arch is modeled by $12x - 3x^2$. Factor this polynomial completely.

Factor each of the following polynomials completely:

2. $36a^3 - 4a =$ _____

3. $n^2 - 11n + 24 =$ _____

4. $4r^3 + 8r^2 - 12r =$ _____

5. $-2a^2 + 8a + 42 =$ _____

6. $20 - 245x^2 =$ _____

7. $3x^2 + 9x - 30 =$ _____

Algebra I - Unit 8: Topic 1 – Factoring Day 2

8. $8x^2 + 8x + 2 =$ _____

9. $2a^2 - 7a + 3 =$ _____

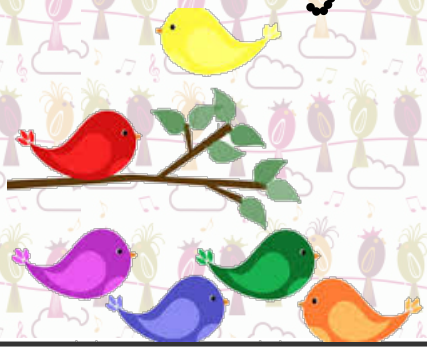
10. $x^2 - 3x + 8 =$ _____

11. $6x^2 + 20x - 16 =$ _____

12. The area of a rectangle is represented by the trinomial $x^2 + 9x + 14$.

A. Factor this trinomial to find the dimensions.

B. If $x = 5$cm, find the actual dimensions of the rectangle.

Exit Ticket

Complete the exit ticket to the best of your ability. It is due ~~before~~ you leave.