Bell Ringer

Tuesday 10/1

Factor Completely

1. $x^2 - 25$ $(x+5)(x-5)$

2. $100x^2 - 81$ $(10x+9)(10x-9)$

3. $16a^2 - 169b^2$ $(4a+13b)(4a-13b)$

Week #6 packet due!

Add up your scores (honestly) at the bottom

Put first and last name legibly please!

Quick Review...

Factoring Match Game

$x^2 - 5x + 6$ $(x-2)(x-3)$

Essential Question

How can you factor a polynomial completely?

I do...

Factor completely

$7x^4 - 63x^2$

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

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

We do...

Factor the polynomial completely.

$2y^3 - 12y^2 + 18y$

$2y(y^2 - 6y + 9)$

+9
−3 ^ −3

$2y(y - 3)(y - 3)$

Factor completely

$x^3 - 4x^2 - 4x + 16$

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

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

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

Do w partner...

Factor the polynomial completely.

Do alone...

$m^3 - 2m^2 - 8m$

$m(1m^2 - 2m - 8)$

$m(m+2)(m-4)$

-8

$2 \quad -4$

I do...

Solve the equation

$3x^3 - 12x = 0$

$3x(x^2 - 4) = 0$

$3x(x + 2)(x - 2) = 0$

$3x = 0$ $\quad x + 2 = 0$ $\quad x - 2 = 0$

$x = 0$ $\quad x = -2$ $\quad x = 2$

We do...

Solve the equation

$2x^3 + 8x^2 = 10x$

$-10x \quad -10x$

$2x^3 + 8x^2 - 10x = 0$

$2x(1x^2 + 4x - 5) = 0$

$2x(x+5)(x-1) = 0$

$\frac{2x}{2} = \frac{0}{2} \qquad x+5 = 0 \quad -5 \quad -5 \qquad x-1 = 0 \quad +1 \quad +1$

$x = 0, -5, 1$

-5

$5 \quad -1$

Solve the equation

$w^3 - 8w^2 + 16w = 0$

$w(1w^2 - 8w + 16) = 0$

$w(w-4)(w-4) = 0$

$w = 0 \quad w-4=0$

$+4 \quad +4$

$w = 4 \quad w = 4$

Do w partner...

16

$-4 \quad -4$

Solve the equation

Do alone...

$24c^3 = 54c$

$-54c - 54c$

$24c^3 - 54c = 0$

$6c(4c^2 - 9) = 0$

$6c(2c + 3)(2c - 3) = 0$

$\frac{6c}{6} = \frac{0}{6}$ $\quad 2c + 3 = 0$ $\quad 2c - 3 = 0$

$-3 \quad -3$

$c = 0$ $\quad \frac{2c}{2} = \frac{-3}{2}$

$c = -\frac{3}{2}$ $\quad c = \frac{3}{2}$

due Thursday
2.8 pg 111-112 #s 1-2, 3, 7, 11, 15, 19, 23, 27, 29, 33, 35, 42