2 MINUTE WARM UP

Factor

$n^2 - 25 = (n+5)(n-5)$

$n^2 - 5^2 = (n+5)(n-5)$

$n^2 - m^2 = (n+m)(n-m)$

HW-Tally

Adenda today

- See your LCQ from 2 classes ago
- Correct/Analyze Homework
- Partner LCQ
- Extra Practice

Pick UP

- The Ch. 3 Test information sheet.

List of Possible Ch. 3 Test Items

Items from Chapter 3

- ✓ Re-write equations to make them solvable. Then solve them *(Good notation and steps expected)*
- ✓ Simplify rational expressions (using different types of factoring AND the property of 1)
  - Be able to state the valuables of the variable that make the expression undefined
- ✓ Multiply and Divide Rational Expressions (only factors can cancel!, you don't need a common denominator)
- ✓ Add and Subtract Rational Expressions (*you do need a common denominator*)
- ✓ Graph a rational function on your calculator
  - Describe any points of discontinuities (including locations of holes and aysmptotes)
  - State the domain and ranges

On-going Items from Previous Chapters

- ✓ Write equations of circles, *in standard form* $(x-h)^2+(y-k)^2=r^2$, or give details about a circle given its equation. AND convert an equation a of circle in non-standard form to standard form.
- ✓ Write a function that will transform a parent function so that it will slide, vertically stretch or shrink, etc.
- ✓ Solve Systems of *linear* equations algebraically, keeping answers exact. (substitution, elimination, etc).
- ✓ Solve quadratic equations (by factoring or the quadratic formula), *remember they have to be set equal to zero first.*

- ✓ Convert a parabola in standard form to graphing form using Completing the Square or u intercepts.
- ✓ Simplify expressions with radicals and exponents *(including negative exponents)*
- ✓ Do quick factoring using the difference of Squares shortcut.

NOT on this test (but may be on future quizzes)

- Solving quadratic equations by completing the square
- Solving inequalities and absolute value inequalities

See your LCQ
from 2 classes ago

QUESTIONS
on
HW

113b $\dfrac{x^2-x-12}{3x^2-11x-4} \cdot \dfrac{3x^2-20x-7}{x^2-9}$

$= \dfrac{(x+3)(x-4)}{(3x+1)(x-4)} \cdot \dfrac{(3x+1)(x-7)}{(x+3)(x-3)}$

113c $\dfrac{2x^2+8x-10}{2x^2+15x+25} \div \dfrac{4x^2+20x-24}{2x^2+x-10}$

Issues if you don't factor out 2 first

Issues if you don't factor out 4 first

$\dfrac{2(x^2+4x-5)}{(2x+5)(x+5)} \div \dfrac{4(x^2+5x-6)}{(\quad)(\quad)} = \dfrac{2(x+5)(x-1)}{(2x+5)(x+5)} \cdot \dfrac{4(x-2)(x-3)}{(2x+5)(x-2)}$

113 c

$$\frac{2x^2+8x-10}{2x^2+15x+25} \div \frac{4x^2+20x-24}{2x^2+x-10}$$

Issues if you don't factor out 2 first

Issues if you don't factor out 4 first

$$\frac{2(x^2+4x-5)}{(\quad)(\quad)} \div \frac{4(x^2+5x-6)}{(\quad)(\quad)} = \frac{2(x-1)(x+5)}{(2x+5)(x+5)} \div \frac{4(x-1)(x+6)}{(2x+5)(x-2)}$$

$$\frac{2(x-1)}{2x+5} \cdot \frac{(2x+5)(x-2)}{4(x-1)(x+6)}$$

$$\frac{x-2}{2(x+6)}$$

113 d

$$\frac{7}{x+5} - \frac{4-6x}{x^2+10x+25} \Rightarrow \frac{7}{x+5} - \frac{2(2-3x)}{(x+5)(x+5)}$$

$$\frac{7(x+5)}{(x+5)(x+5)} - \frac{2(2-3x)}{(x+5)(x+5)} \Rightarrow \frac{7(x+5) - 2(2-3x)}{(x+5)(x+5)}$$

$$\frac{7x+35 - 4+3x}{(x+5)(x+5)} \Rightarrow \frac{10x+31}{(x+5)(x+5)}$$

the real 113 d

$$\frac{16x-12}{4x^2+5x-6} - \frac{3}{x+2}$$

$$\frac{4(4x-3)}{(4x-3)(x+2)} - \frac{3}{x+2}$$

117 $x^2+14x+33=0$

$(x+11)(x+3)=0$

$$\frac{3a^2 - 3b^2}{b - a}$$

$$\frac{2}{x} + \frac{x+1}{5x}$$

$$+$$

$$\frac{x}{3x+9} - \frac{3}{x^2+3x}$$

$$\frac{x}{3(x+3)} - \frac{3}{x(x+3)}$$

$$\frac{-}{3 \bullet x \bullet (x+3)}$$

After the LCQ

A practice worksheet to build your proficiency with $x \div -x$ of rational expressions

Payton A
Eden L.

Ashlyn H.
Zoie W.

Ally W.
Brooklyn N.

Andrea P
Sophia C.

Jessica J.
Anya M.

Riley R.
Lainey B.

Austin F.
Edie M.

McKenzie R.
Jeronn C.
Makayla D.

Kelton S.
Ellie O.

Craig M.
Jeri P.

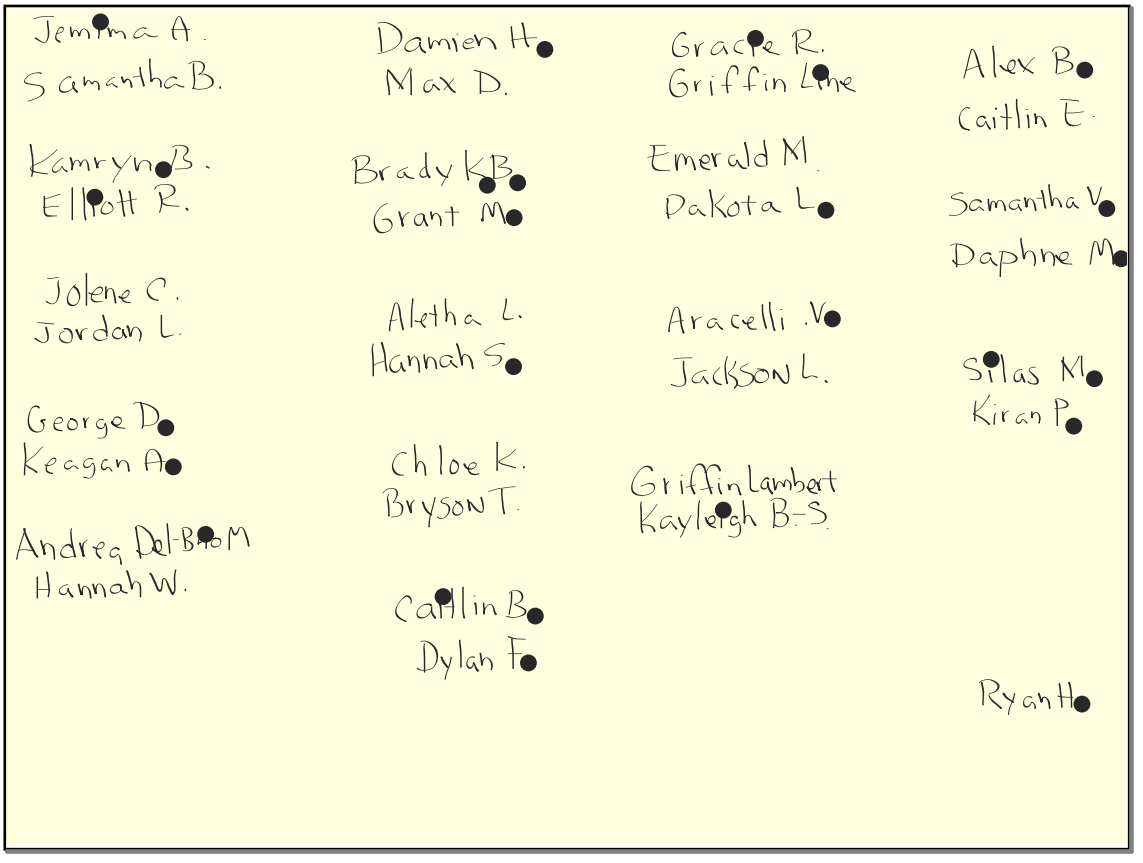
Jackson F
Gunner R.

Alexsandro F.
Peter F.

Katelyn C
Maven R.

Alex C.

malakai G.
Stephanie R.



Practice Worksheet (will be turned in)

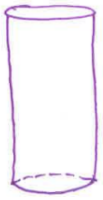
- Check answers often
- Be organized
- Don't skimp on good notation
- Factor **ASAP**
- Do box/diamond work on scratch paper
- Turn-in when finished
  (only after all answers checked

B.B.

Assignment

3 .... 120-121, 123-126

(3) Cylinder



$V = \pi r^2 h$

$SA = 2\pi r^2 + 2\pi r h$

Volume to Surface Area Ratio :

$\frac{V}{SA} =$