Date: Feb. 5

Bell ringer

Solve.

$x = -5$ or -3 extraneous solution

$$\frac{-2x-9}{x^2+7x+12} = \frac{x}{x+3} + \frac{2}{x+4}$$

LCD $(x+3)(x+4)$

$$\frac{-2x-9}{\cancel{(x+3)(x+4)}}\cancel{(x+3)(x+4)} = \frac{x}{\cancel{x+3}}(x+3)(x+4) + \frac{2}{\cancel{x+4}}(x+3)\cancel{(x+4)}$$

$$-2x-9 = x(x+4)+2(x+3)$$

$$-2x-9 = x^2+4x+2x+6$$

$$\cancel{-2x-9} = x^2+6x+6$$

$$\cancel{+2x+9} \qquad +2x \quad +9$$

$$0 = x^2+8x+15$$

$$0 = (x+5)(x+3)$$

$x+5=0$ or $x+3=0$

$x = -5$ $\qquad$ $x = -3$ extraneus solution

Assignment:

Chapter 11 Review WS

Test is on ~~Thursday, Feb. 6~~ Friday, Feb. 7

Handwritten problem on WS:

$$(4a^2b^2c^2 - 8a^3b^2c + 6abc^2) \div (2ab^2)$$

6)

LCD $(x+1)(x-1)$

$$\frac{(x+3)\cancel{(x+1)(x-1)}}{\cancel{(x+1)(x-1)}} - \frac{2x(x+1)\cancel{(x-1)}}{\cancel{x-1}} = 1(x+1)(x-1)$$

$$x+3-2x(x+1) = x^2-1$$

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

$$-2x^2-x+3 = \cancel{x^2-1}$$

$$\underline{-x^2} \qquad \underline{+1} \quad -x^2+1$$

$$(-3x^2-x+4=0)-1$$

F S

$$\begin{array}{c|c} -12 & 1 \\ \hline 4, 3 & \end{array}$$

$$3x^2+x-4=0$$

$$(3x+4)(x-1)=0$$

$$\frac{3}{4} \qquad \frac{3}{-3} = \frac{-1}{-1}$$

$$x = -\frac{4}{3} \text{ or } 1$$

3 extraneous

20

LCD
$n(n-1)$

$$\frac{(n^2-n-6)}{\cancel{n(n-1)}}\cdot \cancel{n(n-1)} - \frac{(n-5)}{\cancel{n-1}}\cdot n\cancel{(n-1)} = \frac{(n-3)}{\cancel{n(n-1)}}\cdot \cancel{n(n-1)}$$

$$n^2-n-6-n(n-5)=n-3$$

$$\cancel{n^2}-n-6-\cancel{n^2}+5n=n-3$$

$$4n-6=n-3$$

$$3n=3$$

$$n=1$$

No Solution   extraneous

34) LCD $y^2(y-2)$

$$\frac{y^2+5y-6}{y^2(y-2)} = \frac{5}{y} - \frac{6}{y^2(y-2)}$$

$$y^2+5y-6 = 5y(y-2) - 6$$

$$y^2+5y-\cancel{6} = 5y^2-10y-\cancel{6}$$

$$-y^2-5y+6 \qquad -y^2-5y+6$$

$$0 = 4y^2 - 15y$$

$$0 = y(4y-15)$$

$y = 0$ or $4y-15=0$

extraneous solution

$$4y = 15$$

$$y = \frac{15}{4}$$