Are there any Homework Questions you would like to see on the board?

Last day's work: pp. 128-129 #(6 – 10)ace

Unit Review work: pp. 132-133 #1, 4ac, 6cfg, 7, 8, 9ab, 10bde, 12ac, 13bc, 14cd, 15ce
p. 134 #1 – 3, 5 – 8 [4, 9]

Today's Homework Practice includes:
pp. 132-133 #1, 4ac, 6cfg, 7, 8, 9ab, 10bde, 12ac, 13bc, 14cd, 15ce

MCR 3UI Whiteboard Review for Unit 1 Test Date: Feb. 14/20

1. Simplify. $(3x-2)+(2x^2-5x+8)$

$= 3x-2+2x^2-5x+8$

$=$

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

$=9x^4-30x^2+25 \quad -2x^2-5x+4$

$=$

3. Determine if the following polynomials are equivalent.
   Note: What are the two methods? Do they always work?

$y_1 = 3\left(x^2 - 4x + 2\right)$ $y_2 = -2\left(x^2 + 4x - 8\right) + 5\left(x^2 + 1\right) - \left(4x + 15\right)$

$= 3x^2 - 12x + 6$ $= -2x^2 - 8x + 16 + 5x^2 + 5 - 4x - 15$

$= 3x^2 - 12x + 6$

$\therefore y_1 = y_2$

$\therefore$ the expressions are equivalent

4. Simplify each of the following.

a) $3xy^2 \times \left(-2x^2y^3\right)$

b) $\dfrac{3x^2y \times \left(-5xy^4\right)}{-3x^4y^3}$

5. Factor each polynomial completely. over the integers.

a) $4x^4 - 16$

$= 4(x^4 - 4)$

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

b) $ab + b^2 + 6a + 6b$

$= b(a+b) + 6(a+b)$

$= (a+b)(b+6)$

c) $6x^2 + 5x - 4$

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

6: 1 6, 2 3

4: 1 4, 2 2

6 1: 1 4

2 2, 3 2

2 +1, 3 -4

$= -8 + 3$
$= -5$

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

$= 8 - 3$
$= 5$

d) $y^2 + 9 - 6y - x^2$

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

$= (y-3)^2 - x^2$

let $w = y - 3$

$w^2 - x^2$

$= (w-x)(w+x)$

$= ((y-3)-x)((y-3)+x)$

$= (y-3-x)(y-3+x)$

6. Simplify. $\dfrac{3n^3 - 3n^2}{8n^3 - 12n^2 + 4n}$

$= \dfrac{3n^2(n-1)}{4n(2n^2-3n+1)}$

$= \dfrac{3n^2(n-1)}{4n(2n-1)(n-1)}$

7. Simplify.

$$\frac{x^2-4}{(x+6)^2}\times\frac{x^2+9x+18}{4-2x}$$

$$= \frac{(x-2)(x+2)}{(x+6)(x+6)} \times \frac{(x+3)(x+6)}{-2(-2+x)}$$

$$-2(x-2)$$

8. Simplify.

$$\frac{3x^2}{x}+\frac{y}{2xy}-\frac{2y^2}{x^2}$$

LCD = $2x^2y$

$$=\frac{3x^2(2xy)}{2x^2y}+\frac{y(x)}{2x^2y}+\frac{2y^2(2y)}{2x^2y}$$

$$=\frac{6x^3y+xy+4y^3}{2x^2y}$$

9. Simplify.

$$\frac{5m-n}{2m+n} - \frac{4m^2-4mn+n^2}{4m^2-n^2} \div \frac{6m^2-mn-n^2}{3m+15n}$$

$$= \frac{5m-n}{2m+n} - \frac{(2m-n)(2m-n)}{(2m-n)(2m+n)} \div \frac{(3m+n)(2m-n)}{3(m+5n)}$$