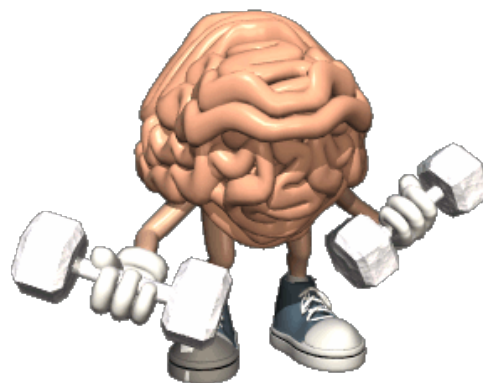Warm Up

Oct. 10

Expand and Simplify

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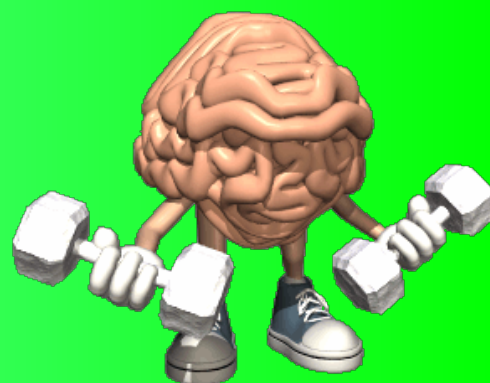
$x^2 - 1x - 3x + 3$

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

Any homework Questions

Page 186-187 4a,b, 5a,b , 8a   (DID not get to-8b, 9ab, 15af,18ab, 21ab

Expand and Simplify

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

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

$$[x^2 -3x -3x + 9] - [x^2 +2x +2x +4]$$

$$[x^2 -6x + 9] - [x^2 + 4x + 4]$$

add opp

$$x^2 - x^2 -6x -4x +9 -4$$
$$+ \quad -x^2 \quad -4x \quad -4$$

$$-10x + 5$$

$$(-7) \; \underset{\substack{\uparrow \\ add}}{-} \; (\underset{\substack{\uparrow \\ opp}}{-} 3)$$

Expand and Simplify

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

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

$(x^2 - 3x - 3x + 9)\ (x-3)\ \ -\ \ (x^2 + 2x + 2x + 4)$

$(x^2 - 6x + 9)\ (x-3)\ \ -x^2 - 4x - 4$

$x^3 - 3x^2 - 6x^2 + 18x + 9x - 27 - x^2 - 4x - 4$

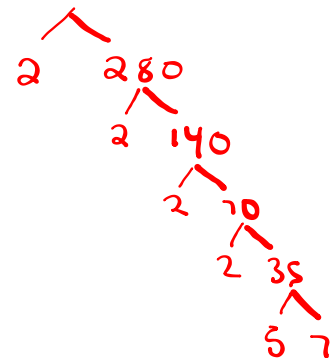$$x^3 - 10x^2 + 23x - 31$$

Quiz on

~~WEDNESDAY~~
Thursday

- Prime factorization

2,3,5,7,11,13

Example: Prime factorization of 560

$560 = 2 \times 2 \times 2 \times 2 \times 5 \times 7$
$= 2^4 \times 5 \times 7$

2   280
2   140
2   70
2   35
5   7

- Greatest Common Factor

Example: 56, 72

Factor

Example: $(3xy + 6x^2y^3 - 24x)$

- Multiplying polynomials

Example: $3(2x-7) + (5x+3)^2$

$$GCF\ (56, 72)\ =\ 2 \times 2 \times 2 = \boxed{8}$$

Box/Ladder

		56	72
GCF	2		
	2	28	36
	2	14	18
LCM		7	9

$$LCM(56, 72) = 2 \times 2 \times 2 \times 7 \times 9$$
$$= 504$$

$$GCF \ (56, 72) = 8$$

56	72
1 × 56	1 × 72
2 × 28	2 × 36
3 × 17	3 × 24
4 × 13	4 × 18
7 × ⑧	6 × 12
	⑧ × 9

$$LCM \ (56, 72)$$

56 → 56, 112, 168, 224, 280, 336, 392, 448, ⑤⓪④, 560

72 → 72, 144, 216, 288, 360, 432, ⑤⓪④

- Greatest Common Factor

Example: 56, 72

56

1 , 56

2 , 28

4 , 14

7 , 8

72

1, 72

2, 36

3, 24

4, 18

6, 12

8, 9

$$GCF = 8$$

Factor :

Example: $(3xy + 6x^2y^3 - 24x)$

$3x (1y + 2x^1 y^3 - 8)$

- Multiplying polynomials

Example: $3(2x-7) + (5x+3)^2$

$$6x - 21 \quad + \quad (5x+3)(5x+3)$$

$$6x - 21 \quad + \quad 25x^2 + 15x + 15x + 9$$

$$6x - 21 \quad + \quad 25x^2 + 30x + 9$$

$$25x^2 + 36x - 12$$

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Questions 8b, 9cd, 15a~~c~~, ~~~~8c, 21a

2a)
GCF (48,40)

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Question 1ac~~d~~, 2ab, ~~~~ 3a ~~b~~
3a) LCM (12, 15)

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Questions ~~14~~c, 15 b(iii, iv) 16~~d~~f