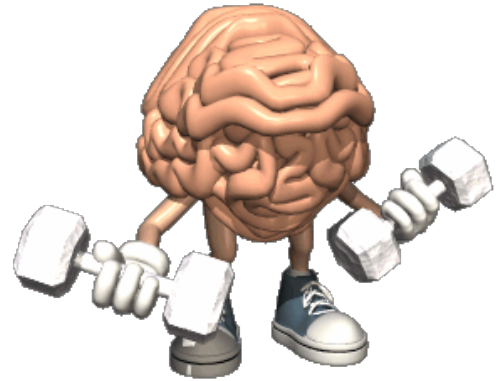


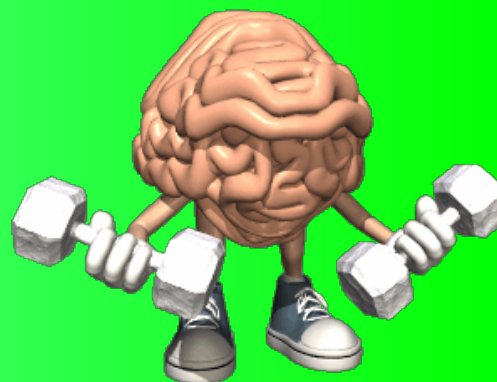
# Warm Up

Expand and Simplify



$$\begin{aligned}
 & (x-3)(x-1)(x-5) \\
 & (x^2 - 1x - 3x + 3)(x-5) \\
 & (x^2 - 4x + 3)(x-5) \\
 & -x^3 - 5x^2 - 4x^2 + 20x + 3x - 15 \\
 & = x^3 - 9x^2 + 23x - 15
 \end{aligned}$$

# Warm Up



Expand and Simplify

$$\begin{aligned}
 & (x-3)^2 - (x+2)^2 \\
 & (x-3)(x-3) - (x+2)(x+2) \\
 & (x^2 - 3x - 3x + 9) - (x^2 + 2x + 2x + 4) \\
 & (x^2 - 6x + 9) - 1(x^2 + 4x + 4) \\
 & x^2 - 6x + 9 - x^2 - 4x - 4 \\
 & -10x + 5
 \end{aligned}$$

Expand and Simplify

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

$$(x-3)(x-3)(x-3)$$

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

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

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

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

$$(x+2)(x+2)$$

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

$$-x^2 - 4x - 4$$

Quiz tomorrow on

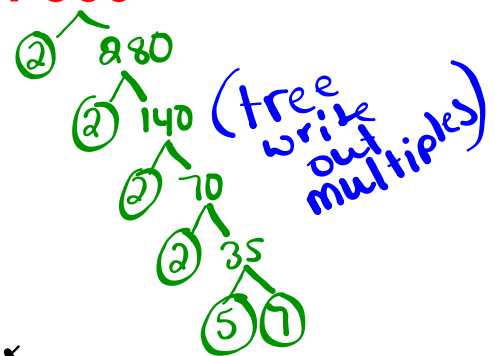


- Prime factorization

**Example: Prime factorization of 560**

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

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



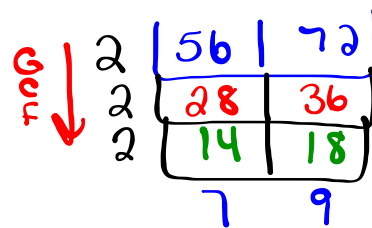
- Greatest Common Factor

↓  $GCF(56, 72) = 2 \times 2 \times 2 = 8$  Ladder/Box

**Example: 56, 72**

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

$$= 504$$



Factor

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

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

- Multiplying polynomials

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

$$10x^2 + 6x - 35x - 21$$

$$10x^2 - 29x - 21$$

## Quiz Tomorrow



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Questions 9cd, 15ce, ~~10c~~, ~~11c~~

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Question 1ac, 2ab, 4

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Questions

15vi

16cdf