

Sept 7/2011

## Review - Part I

### Numbers & Operations

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## Review - Part I

### Numbers & Operations

Integers (or Integer Numbers)

- what are they?
- what can we do with them? (operations)

- integers are all whole numbers, positive and negative, including zero.

... , -3, -2, -1, 0, 1, 2, 3, ...

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## Order of Operations

- what is it?
- how can we remember?
- make up one or two questions...

B brackets  
 E exponents  
 D division  
 M multiplication  
 A addition  
 S subtraction

$$\begin{aligned}
 & 3(3^2 \times 4) \div (4(2+1-2)^2) \\
 & = 3(9 \times 4) \div 4(1)^2 \\
 & = 3(36) \div 4(1) \\
 & = 108 \div 4 \\
 & = 27
 \end{aligned}$$

$$\frac{3(3^2 \times 4)}{4(2+1-2)^2}$$

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## Rational Numbers

- what are they?
- how do we use them?

an integer divided by another integer (that is not zero)

$$\frac{a}{b} \text{ where } a \text{ \& } b \text{ are integers and } b \neq 0$$

↑  
"not equal to"

(a) add/subtract

$$\begin{aligned}
 \frac{3}{4} + \frac{1}{2} &= \frac{3}{4} + \frac{1 \times 2}{2 \times 2} \\
 &= \frac{3}{4} + \frac{2}{4} \\
 &= \frac{5}{4}
 \end{aligned}$$

find LCD (lowest common denominator)

(b) multiply

$$\begin{aligned}
 \frac{5}{6} \times \frac{2}{3} &= \frac{5 \times 2}{6 \times 3} \\
 &= \frac{10}{18} \\
 &= \frac{5}{9} \text{ reduced, or simplest, form}
 \end{aligned}$$

(c) division

$$\begin{aligned}
 \frac{5}{6} \div \frac{2}{3} &= \frac{5}{6} \times \frac{3}{2} \\
 &= \frac{15}{12}
 \end{aligned}$$

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Assigned Work:

p.461 # 1, 3, 4, 5

p.462 # 1, 2

p.463 # 1 - 5

Vocabulary:

Evaluate - determine a value for an expression

Simplify - rewrite an expression as simply as possible

Expression - a combination of numbers and/or variables using mathematical operations, with no equal sign

[stevesweeney.pbworks.com/MPM2D](http://stevesweeney.pbworks.com/MPM2D)

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p 461 # 1(f)

$$32 + (-10) + (-12) - 18 - (-14)$$

$$= 32 - 10 - 12 - 18 + 14$$

$$= 22 - 12 - 18 + 14$$

$$= 10 - 18 + 14$$

$$= -8 + 14$$

$$= 6$$

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