Math 107

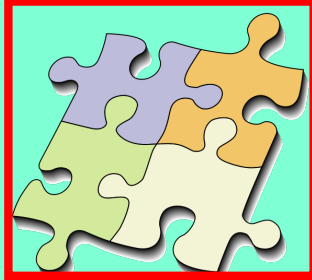**Fall 2017**

Lecture 1

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This class is designed to help Math 115 students.

Math 107
   MW   12:10 - 1:00   for   8 weeks

You will be graded based on work
turned in & short Quizes.

All materials are available on line
"No Access code required" at

          WWW. my math classes.com

Operations:

   Addition : Sum, Total, more than,
                added to , increase, Plus,---.

   Subtraction: Difference, less, less than,
                  reduced by, minus,---.

   Multiplication : product ,times, of,---

   Division : Divide, quotient, ratio,----.

   Roots & exponents : square, square root,
                  Cube,----.

The sum of 6 and Some number is 20

Variable

$6 + x = 20$

$6 + x = 20$

4 times Some number increased by 2 is equal to the number.

$4x + 2 = x$ $4x + 2 = x$

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the difference of 10 and Some number is equal to half the number.

$10 - x = \frac{1}{2}x$

Square of Some number increased by 10 is equal to 3 times the number.

$x^2 + 10 = 3x$

the quotient of some number and

5 less the number is equal to $\frac{3}{4}$.

$$\frac{x}{x-5} = \frac{3}{4}$$

A added to B $\rightarrow$ B + A

A less than B $\rightarrow$ B - A

A increased by B $\rightarrow$ A + B

A reduced by B $\rightarrow$ A - B

A Subtracted from B   B - A

A minus B   A - B

10 Subtracted from   twice Some number $\overset{x}{}$

$2x$

$2x - 10$

Cube of Some number   less 8   is equal to

the number.

$$x^3 - 8 = x$$

Ch. Basic Translation

Look for keywords

The (Sum) of [Some number] and [7].

Let x be Some number
↳variable
→ Addition

x + 7

The [difference] of (Some number) and (10) is
equal to 5. Let x be Some number,
→ Subtraction

$$x - 10 = 5$$

Translate Only:

Twice [Some number] increased by -10.

Let x be Some number,
→2·x   + (-10) ✓

$$2(x + (-10))$$
Twice the Sum

$$= 2x - 10$$

Twice the difference of Some number and 8
is equal to the number. Let x be Some number,

$$2(x - 8) = x$$

3 times some number reduced by -5

is equal to

the number squared. Let x be some number,

$$3 \cdot x - (-5) = x^2$$

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

Difference of A and B $\rightarrow$ A - B

A less than B

$\rightarrow$ B - A

A less B $\longrightarrow$ A - B

A reduced by B $\rightarrow$ A - B

Added to

Subtracted from

more than

Less than

Reverse them

fewer than

27 less x^3

27 - x^3

5 added to x

$x + 5$

8 Subtracted from x^2

$x^2 - 8$

2 more than x

$x + 2$

27 less than x^3

$x^3 - 27$

Square root of some number is equal to the number less 2.

Let x be some number,

$$\sqrt{x}$$
$$=$$
$$x - 2$$

$$\sqrt{x} = x - 2$$

the sum of some number and 3, raised to the second power, the result is 9 more than the number.

Let x be some number,

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

The quotient of some number and 5
$$x \qquad 5$$
is equal to $\frac{1}{2}$.

Let x be some number

Division

$$\frac{x}{5} = \frac{1}{2}$$

the quotient of some number and 10

is equal to the quotient of 5 and the number

Let x be the number,

$$x \div 10 = 5 \div x$$

$$\frac{x}{10} = \frac{5}{x}$$

The quotient of some number and 3 more than the number is equal to $\frac{3}{4}$.

Place holder for operation.

$$\frac{x}{x+3} = \frac{3}{4}$$

Draw a rectangle, label it such than the length is 1 inch shorter than twice the width.

$W = x$

$L = 2X - 1$