

Date:

Section 2.2
Intermediate Algebra
Digital Notes

Formulas and Functions

Definition - A **formula** is

Solving for a Variable in a Formula

Process - To solve for a variable in a formula means to isolate that variable on one side of the equation, using the Properties of Equality from Section 2.1.

Hint - Treat all other variables (that you are not solving for) as if they were just numbers.

Example - Solve for t : $I = Prt$

Example - Solve for b_1 : $A = \frac{1}{2}(b_1 + b_2)$

Now try 8, 10, 14, 16. (More practice? 9, 11, 15, 17).

Function

Definition - Writing **y** as a function of **x** means

Example - Solve for y: $2x + 3y = 9$

Example - Solve for y: $\frac{1}{2}x - \frac{1}{3}y = 2$

Now try 20, 24. (More practice? 21, 25).

Example - Solve for P: $A = P + Prt$

Now try 28, 30, 32. (More practice? 29, 31).

Example - Find x given that $y = 2$, $z = -3$, and $w = 4$: $w(x - z) = y(x - 4)$

Now try 44, 48, 54, 56, 62. (More practice? 43, 47, 53, 61).

Using a Formula

Example - The radius of a circle is a function of its circumference.

Example - The volume of a rectangular block of ice is 36 cubic feet. The bottom is 2 feet by 2.5 feet. Find the height of the block.

Hint on 78 -

Now try 70, 74, 76, 78. (More practice? 73, 77).