#### 9D Unit2 Survival Guide

## Solve Equations

# Name: \_\_\_\_\_

### **Solve Equations**

Operation	Addition	Subtraction	Multiplication	Division	Exponent
Inverse					

$$-13 = x - 8$$

$$-3x = 6$$

$$x^2 = 200$$

$$-18 = 6 - 2x$$

$$\frac{x}{2} + 14 = 9$$

$$3x^2 - 5 = 70$$

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

$$\frac{2x}{3} = \frac{x}{2} - \frac{x}{2}$$

$$7 + 2(x-3) = x+4$$

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

#### **Rearrange Formulas**

$$T = 2\pi \sqrt{\frac{L}{g}}$$
 solve for  $g$ 

$$E = \frac{1}{2}mv^2 - \frac{1}{2}mu^2 \qquad \text{solve for } u$$

#### Word Problems - set up only

Jill sold half of her comic books and then bought sixteen more. She now has 36. With how many did she begin? A vending machine contained \$13 in dimes and quarters. There were 70 coins. How many dimes were there?

John bought a new TV. The total cost included a delivery charge of \$120, plus taxes of 13% of the total. If the total ended up being \$537.77, how much did the TV cost without tax or delivery?

Ted and Ben are swimming laps in a pool of 50m length. They start at opposite ends of the pool at the same time. Ted swims 10m/min faster than Ben does. After 2 min they swim past each other, how fast is each person swimming?