

U3D1 Warm Up:

List the opposite operation for each of the following:

adding _____

subtracting _____

multiplying _____

dividing _____

MPM 1DI – Unit 3 - Equations
Day 1 - Solving Simple Equations

QUIZ #1:

QUIZ#2:

UNIT 3 TEST:

When we are asked to solve an equation we are trying to determine what value of _____ makes the mathematical statement _____.

By inspection we can see that if $x = \underline{\hspace{1cm}}$ the statement is true. BUT....Not all equations can be solve by inspection. To solve equations we want to _____ (ie. Get the variable by itself.)

For example when solving

$$x - 3 = 15$$



An _____ sign in the middle means that whatever is on the left side is _____ with whatever is on the right side.

When working with equations we need to keep the equation balanced... **Therefore whatever is done to one side needs to be done to the other side as well! To isolate the variable we use _____!**

$$x - 3 = 15$$

Example 2: Solve

a) $x + 4 = 70$

b) $25 = 5 + x$

c) $3x = 15$

d) $6y = -48$

e) $\frac{b}{4} = 16$

f) $\frac{y}{2} = -3$

When solving multi - step equations, we need to isolate the variable _____ first, THEN isolate the _____.

Example 3: Solve

a) $4k - 7 = 9$

b) $3x - 2 = 10$

c) $\frac{y}{4} + 7 = 12$

Example 4: Solve the following and check your answer:

$$3x - 8 = 7$$

When checking the solution use proper form using the Left Side / Right Side technique

Check:

Left Side	Right Side

Example 5: Fred is building an ultralight airplane. The fuel tank is made of plastic and has a mass of 5000g. Each litre of gasoline has a mass of 840g. The total mass of the fuel plus the tank can not exceed 21 800 g.

a) Write an equation to model the number of litres of gasoline that the tank may hold.

b) Solve the equation to determine the number of litres in a fuel tank