**SOLVE EQUATIONS**

1.
$$-1 = t - 4$$

2.
$$-60 = 15x$$

7.
$$\frac{x+3}{3} - \frac{2-x}{7} = 1$$

3.
$$-16 = 1 + \frac{x}{3}$$

4.
$$\frac{9+m}{3} = 2$$

5.
$$x - 1 = 5x + 3x - 8$$

To check:

**REARRANGING FORMULAS**

8.
Solve $d = st$ for $s$

9.
Solve $y = mx + b$ for $x$.

10.  Solve for c
$$m = \frac{E}{c^2}$$

11.
Solve $w = u + at^2$ for $a$.

6.
$$5(2x - 3) = 5 - (x - 2)$$

Survival Guide          Unit 2 – Solve Equations          Name: _____

## Word Problems

**12. Taxes type**

You bought a vacation package. The total cost included airport fee of $100 and taxes of 13%.
a. Assign variables and create an equation for this problem.
b. Determine the original cost of the vacation without the airport fee or taxes if the total cost was $1200.

**13. One rate type**

A banquet hall has a flat fee of $4000 for the event plus a charge per person attending. There were 250 people at the banquet.
a. Assign variables and create an equation for this problem
b. If the total cost was $12 000, what was the charge per person?

**14. Two rates type**

A sightseeing train runs tours. An adult ticket is $3 and a child's ticket is $1.
a. Assign variables and create an equation for this problem.
b. If the total revenue was $750 and 600 child tickets were sold, how many adults went on the tour?

## Rearrange Linear Relation

15. $-3x - 7y + 28 = 0$