

# B2

## Solving Equations: One Step

Note Title

12/05/2015

### Rules

- ① Do the same operation on BOTH sides
- ② Solve equations (multi-step), follow SAMDEB
- ③ Do the OPPOSITE operation of what the question shows.
- ④ Do a CHECK after you have solved the equation. Use original equation, substitute in your answer, follow BEDMAS.

Solve

Shows multiply divide eqn

$$\textcircled{1} \quad 5x = 20$$

$\div 5$                        $\div 5$

$$x = 4$$

$$\textcircled{2} \quad 3m = -18$$

$\div 3$                        $\div 3$

$$m = -6$$

$$\textcircled{3} \quad -10r = -120$$

$\div -10$                        $\div -10$

$$r = 12$$

$$\textcircled{4} \quad \frac{x}{2} = 7 \times 2$$

$\times 2$                        $\times 2$

$$x = 14$$

$$\textcircled{5} \quad \frac{x}{-3} = -8 \times -3$$

$\times -3$                        $\times -3$

$$x = 24$$

$$\textcircled{6} \quad -11 = \frac{m}{9}$$

$\times 9$                        $\times 9$

$$-99 = m$$

$$\textcircled{7} \quad h - 8 = 13$$

$+8$                        $+8$

$$h = 21$$

$$\textcircled{8} \quad -12 = m + 3$$

$-3$                        $-3$

$$-15 = m$$

Solve and check:

$$\textcircled{1} \quad \frac{j}{5} = -8 \times 5$$

$\times 5$                        $\times 5$

$$j = -40$$

Check:

$$\frac{j}{5} = -8$$
$$\frac{-40}{5} = -8$$
$$-8 = -8$$

stays same

When the 2 sides "match" your check is done and your answer is correct. If sides don't match your answer is wrong.

②  $3x = 12$   
 $\div 3$   $\div 3$   
 $x = 4$

$3x = 12$   
 $3(4) = 12$   
 $12 = 12 \checkmark$

Want you to use a CHECK with the given value

Show if  $x = -2$  is the solution of: Do NOT solve

$-5x = -10$

$-5(-2) = -10$

$10 = -10$

Different, so  $x = -2$  is **NOT** the answer.

You are making four pairs of mittens. You have 144cm of trim to sew around the cuffs. How much trim is on each mitten. Write and solve an equation.

$8 \text{ mittens} = 144$

$8(x) = 144$   
 $\div 8$   $\div 8$

$x = 18 \text{cm}$

Needs a Variable

B2 Algebra

① page 377 # 13, 17, 19-22