

4-2B Solving One-Step Equations by Multiplying & Dividing

To Solve Equations:

1. Use inverse operations to isolate the variable.
2. Whatever you do to one side of the equation, you must do to the other side.
3. Always check & graph your answer!!!

Note: CANNOT CROSS CANCEL ACROSS THE EQUAL SIGN!!!

REMEMBER Integer Rules (Multiplying and Dividing)

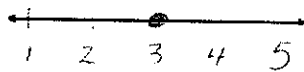
1. Same signs \rightarrow Positive Answer
2. Different signs \rightarrow Negative Answer

Ex. 1: Solve each equation. Check and graph your solution on a number line.

A. $6x = 18$

$$\frac{6x}{6} = \frac{18}{6}$$

$$x = 3$$

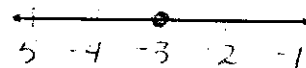


Check: $6x = 18$
 $6(3) = 18$
 $\checkmark 18 = 18$

B. $-8y = 24$

$$\frac{-8y}{-8} = \frac{24}{-8}$$

$$y = -3$$



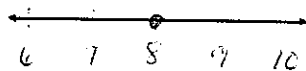
Check: $-8y = 24$
 $-8(-3) = 24$
 $\checkmark 24 = 24$

C. $-56 = -7x$

$$\frac{-56}{-7} = \frac{-7x}{-7}$$

$$8 = x$$

$$x = 8$$

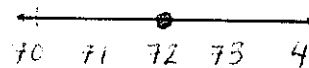


Check: $-56 = -7x$
 $-56 = -7(8)$
 $\checkmark -56 = -56$

D. $\frac{p}{9} = 8$

$$\frac{p}{9} \cdot \frac{9}{1} = 8 \cdot \frac{9}{1}$$

$$p = 72$$

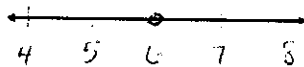


Check: $\frac{p}{9} = 8$
 $\frac{(72)}{9} = 8$
 $\checkmark 8 = 8$

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

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

$$x = 6$$



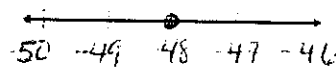
Check: $\frac{x}{-2} = -3$
 $\frac{(6)}{-2} = -3$
 $\checkmark 3 = -3$

F. $-12 = \frac{x}{4}$

$$4 \cdot -12 = \frac{x}{4} \cdot \frac{4}{1}$$

$$-48 = x$$

$$x = -48$$



Check: $-12 = \frac{x}{4}$
 $-12 = \frac{(-48)}{4}$
 $\checkmark -12 = -12$