

Solving Equations by Dividing or Multiplying

Division Property of Equality

If you divide each side of an equation by the same nonzero number, the two sides remain equal.

Multiplication Property of Equality

If you multiply each side of an equation by the same number, the two sides remain equal.

\*\* You undo multiplication by dividing

\*\* You undo division by multiplying

Goal: To isolate the variable

Examples: Solve and check

1)  $8x = 56$

2)  $-4b = 76$

3)  $5m = 0$

\*4)  $-x = 11$

5)  $-35y = -140$

6)  $\frac{x}{4} = 5$

$$7) \frac{n}{-2} = 12$$

$$8) 10.1 = \frac{s}{-8}$$

$$9) 30 = \frac{1}{15}w$$

$$10) \frac{1}{-4}c = -64$$

$$11) \frac{2}{3}x = 10$$

$$12) \frac{4}{7}x = 2$$

$$13) -12 = \frac{3}{5}y$$

$$14) -3 = \frac{5}{6}n$$