

**Solve each equation.**

State the property of equality you used. Then, check your solutions by plugging answers into original problem.

**Inverse Operations**

How do you 'undo' addition?

How do you 'undo' subtraction?

How do you 'undo' multiplication?

How do you 'undo' division?

1)  $\frac{a}{12} = 13$

2)  $32 = -b$

3)  $v + 18 = 25$

4)  $x + 11 = 29$

5)  $n - 5 = 15$

6)  $0 = k - 11$

7)  $20 = -10p$

8)  $-114 = 19x$

9)  $-8 = \frac{n}{19}$

10)  $\frac{m}{13} = -2$

11)  $14 = \frac{r}{7}$

12)  $x + 5 = -2$

$$13) 15 + n = -4$$

$$14) b - 3 = 6$$

$$15) -21 = v - 17$$

$$16) \frac{2}{3} + x = 2$$

$$17) -\frac{2}{3}x = \frac{1}{3}$$

$$18) -2h = -1.46$$

### 19) SCHOOL

Four-ninths of the students at Edison Junior High School walk to school. If 248 students walk to school, how many students attend Edison Junior High School?

20) **WEATHER** The difference between the record high and low temperatures in Charlotte, North Carolina, is  $109^{\circ}\text{F}$ . The record low temperature was  $-5^{\circ}\text{F}$ . Write and solve an equation to find the record high temperature.

21) A rectangle has an area of  $32 \text{ m}^2$ . Find the length of the rectangle if the width is equal to 12m.

**Equation:**

**Answer:**

22) **BOOK FINES:** The library charges \$0.15 a day for each day a book is late. How many days late is a book if the fine is \$2.10?

23) The quotient of a number and  $-4$  is 8.

24) **D=RxT:** A car is traveling 35 miles and hour. How long will it take to go 140 miles?

**Solve each equation.**

1)  $\frac{a}{12} = 13$   
 {156}

2)  $32 = -b$   
 {-32}

13)  $15 + n = -4$   
 {-19}

3)  $v + 18 = 25$   
 {7}

4)  $x + 11 = 29$   
 {18}

14)  $b - 3 = 6$   
 {9}

5)  $n - 5 = 15$   
 {20}

6)  $0 = k - 11$   
 {11}

15)  $-21 = v - 17$   
 {-4}

7)  $20 = -10p$   
 {-2}

8)  $-114 = 19x$   
 {-6}

16)  $2 \frac{2}{3}$

9)  $-8 = \frac{n}{19}$   
 {-152}

10)  $\frac{m}{13} = -2$   
 {-26}

17)  $-\frac{1}{2}$

18) 0.73

19) 558 Students

11)  $14 = \frac{r}{7}$   
 {98}

12)  $x + 5 = -2$   
 {-7}

20) 104 degrees

21)  $A = lw, 32 = 12l, w = \frac{8}{3}$

Days \$

1 0.15

2  $0.15 + 0.15 = 0.15(2)$

3  $0.15 + 0.15 + 0.15 = 0.15(3)$

22) 4  $0.15 + 0.15 + 0.15 + 0.15 = 0.15(4)$

x  $0.15(x)$

23)  $\frac{x}{-4} = 8$

24)  $140 = 35t$   
 $t = \frac{140}{35} = \frac{14 \cdot 2 \cdot 5}{5 \cdot 7} = 4 \text{ hours}$

Eq:  $0.15x = 2.10$

$x = \frac{2.10}{0.15} = \frac{210}{15} = \frac{70}{5} = 14 \text{ days}$