

Review: Solving Equations

Solve & check.

① $-x - 6 = 9$

② $-50 = -12x$

③ $\frac{w}{9} = -\frac{5}{6}$

④ $-\frac{3}{4}x = 6$

⑤ $1 = 5 - \frac{1}{3}x$

⑥ $2(3-x) = 6$

⑦ $7x - 9 = 3x - 3$

⑧ $6x - 3(2x - 1) = 4$

⑨ $10 - 5(x - 2) = 7 - 3(2x - 1)$

⑩ $4 - 3(1 - x) = 3(x + 1) - 2$

State each property.

⑪ if $a = b$, then $a + b = c + b$

⑫ if $a = b$, then $a - c = b - c$

⑬ $a \cdot (b \cdot c) = (a \cdot b) \cdot c$

⑭ $a + b = b + a$



Define a variable, write an equation, solve.

⑮ the sum of 3 consecutive odd integers is 105.
Find the integers.

⑯ you & 3 of your friends go out to eat. You each pay $\frac{1}{4}$ of the bill. if your share of the bill is \$8.50, what is the total cost of the meal?

Answers:

① $x = -15$

② $x = 25/6$

③ $w = -15/2$

④ $x = -8$

⑤ $x = 12$

⑥ $x = 0$

⑦ $x = 3/2$

⑧ $\emptyset$

⑨ $x = -10$

⑩ $\forall \mathbb{R}$

⑪ NONE

⑫ subtraction prop of eq.

⑬ associative prop. of multiplication

⑭ commutative prop. of addition

⑮ let $n = 1st \#$, $n+2 = 2nd \#$, $n+4 = 3rd \#$

$$n + n + 2 + n + 4 = 105 \quad ; \quad \text{integers } \{33, 35, 37\}$$

⑯ let $x = \text{total cost of meal}$

$$\frac{1}{4}x = 8.50 \quad ; \quad \text{solution } x = \$34.00$$