

DO NOW

Grant pays \$0.10 per minute plus \$5 per month for telephone long distance. Write an algebraic expression for m minutes of long-distance calls in one month

$$.10m + 5$$

Oct 3-8:23 AM

1) B 2) C 3) A 4) A 5) D
 6) A 7) D 8) Infinite number of solutions
 9) $\frac{3}{2}$
 10) The solution set is empty.
 11) 0
 12) -7 (H) 12
 13) ±4
 14) 12

⑨ $5x - x + 3 = 7 + 2x - 4$
 $4x + 3 = 3 + 2x$
 $4x - 2x = 3 - 3$
 $2x = 0$
 $x = 0$

⑩ $2 - 6x + 18 = 8x - 1$
 $20 - 6x = 8x - 1$
 $20 - 8x = 8x - 1 - 8x$
 $20 - 14x = -1$
 $-14x = -21$
 $x = \frac{-21}{-14}$
 $x = \frac{3}{2}$

⑪ $3x - 5x + x = 56 - x$
 $-x = 56 - x$
 $0 = 56$

Oct 2-7:00 AM

15) 2, 10 20) 28
 16) 1 21) 56, 48
 17) 1 22) 27
 18) $\frac{8}{3}, -2$ 23) 3
 19) 3 24) -7, 2

⑮ $6x - x = 4$
 $5x = 4$
 $x = \frac{4}{5}$

⑯ $6x - x = -4$
 $5x = -4$
 $x = -\frac{4}{5}$

⑰ $8x + 4y = 6$
 $4x - 2y = 6$
 $4x + 4y = 6$
 $4x - 2y = 6$
 $6y = 0$
 $y = 0$
 $4x = 6$
 $x = \frac{3}{2}$

⑱ $4 - 2y = 10$
 $-2y = 6$
 $y = -3$

⑲ $4 - 2y = -10$
 $-2y = -14$
 $y = 7$

Oct 2-7:01 AM

Problem Solving

- > Define the variable (write "let" statements!)
- > Translate words into mathematical numbers and symbols.
- > Write an equation
- > Solve for the variable
- > Your solution should MAKE SENSE

Oct 3-12:54 PM

1) For her cell phone service, Vera pays \$32 a month, plus \$0.75 for each minute over the allowed minutes in her plan. Vera received a bill for \$47 last month. For how many minutes did she use her phone beyond the allowed minutes?

Let: $x =$ minutes

$$\begin{array}{r} 32 + .75x = 47 \\ -32 = -32 \\ \hline .75x = 15 \\ \cdot \frac{4}{3} \cdot \frac{4}{3} \\ \hline x = 20 \text{ minutes} \end{array}$$

Oct 1-10:36 AM

2) Two candidates for class president received a total of 117 votes. The winner received twice as many votes as the runner-up. How many votes did the winner receive?

Let: $x =$ runner-up = 39 votes
 $2x =$ Winner = 78 votes

$$\begin{array}{r} 2x + x = 117 \\ 3x = 117 \\ \cdot \frac{1}{3} \cdot \frac{1}{3} \\ \hline x = 39 \end{array}$$

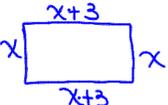
Oct 1-10:37 AM

3.5 Word Problems Day 1.notebook

October 02, 2014

3) A rectangle's length is 3 feet longer than its width. Its perimeter is 62 feet. What are the rectangle's dimensions?

Let: $x = \text{width} = 14\text{ft}$
 $x + 3 = \text{length} = 17\text{ft}$



$$x + x + x + 3 + x + 3 = 62$$

$$4x + 6 = 62$$

or

$$2(x) + 2(x + 3) = 62$$

$$2x + 2x + 6 = 62$$

$$4x + 6 = 62$$

$$\begin{array}{r} 4x + 6 = 62 \\ -6 \quad -6 \\ \hline 4x = 56 \\ \hline x = 14 \end{array}$$

Oct 1-10:38 AM

4) The greater of two numbers is twice the smaller. If the greater number is increased by 6, the result is 10 less than three times the smaller. Find the two numbers.

let: $x = \text{smaller number}$
 $2x = \text{greater number}$

$$2x + 6 = 3x - 10$$

Oct 1-10:38 AM

5) To repair body damage on a car, AutoBody charges \$125 plus \$18 per hour. CarCare charges \$200 plus \$12 per hour. Determine the number of hours for which the two body shops will cost the same.

Oct 1-10:38 AM

6) A piggy bank contains quarters, dimes and nickels. There are two more quarters than nickels, and the number of dimes is five times the number of nickels. The total amount of money in the bank is \$4.50. How many of each type of coin are in the piggy bank?

Oct 1-10:38 AM

HOMEWORK

Workbook

p. 26 # 1 and 3

p. 32 # 1 and 3

Oct 1-10:49 AM