

Algebra Word Problems

April 24, 2023

Steps:

- 1.) Let Statement
 - ↳ What we are solving for
 - ↳ Variable
- 2.) Write the knowns
 - ↳ Read from the question
- 3.) Make your algebraic equation
- 4.) Solve with algebra
- 5.) Verify
- 6.) Sentence

Example: Isra bought some drawing pens for ~~\$32~~. She got ~~\$47~~ in charge. How much money did she start with?

Let x = How much money she started with.

Know: Pens \$32
\$47 in charge

$$\text{Start \$} - \text{\$ Pens} = \text{\$ Charge}$$

$$\begin{array}{r} x - 32 = 47 \\ + 32 \quad + 32 \\ \hline x = 79 \end{array}$$

$$\begin{array}{l} \text{Verify: } x - 32 = 47 \\ (79) - 32 = 47 \\ 47 = 47 \checkmark \end{array}$$

Isra started with \$79.

Example: Uncle Taim went to 7-11. He spent \$4 on a slurpee. He also bought 3 bags of Doritos. He spent \$22 in total. How much was each bag of Doritos?

Let x = How much for each bag

Know: \$22 total
3 bags
\$4 slurpee

$$\begin{aligned} \text{Total} &= 3 \text{ bags of Doritos} + \text{Slurpee} \\ 22 &= 3x + 4 \\ -4 & \quad \quad \quad -4 \end{aligned}$$

$$\frac{18}{3} = \frac{3x}{3}$$

$$\boxed{6 = x}$$

$$\begin{aligned} \text{Verify: } 22 &= 3x + 4 \\ 22 &= 3(6) + 4 \\ 22 &= 18 + 4 \\ 22 &= 22 \end{aligned}$$

Each bag of Doritos cost \$6