

MY Homework

Lesson 9

Solve Multi-Step Word Problems

Homework Helper



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The concession stand employees started with \$520 in the cash register. They earned \$725 at the football game. They had to pay \$125 for more popcorn and \$65 for more hot chocolate. How much is in the cash register now?

Write an equation.

starting amount	earned at game	paid for popcorn	paid for hot chocolate	final amount					
↓	↓	↓	↓	↓					
\$520	+	\$725	-	\$125	-	\$65	=	c	← unknown

Add and subtract in order from left to right.

Estimate $520 + 725 - 125 - 65 = c$

↑	↑	↑	↑					
rounds to								
↓	↓	↓	↓					
500	+	700	-	100	-	100	=	\$1,000

1

Add.

$$\begin{array}{r} 520 \\ + 725 \\ \hline 1,245 \end{array}$$

2

Subtract.

$$\begin{array}{r} 1,245 \\ - 125 \\ \hline 1,120 \end{array}$$

3

Subtract.

$$\begin{array}{r} 1,120 \\ - 65 \\ \hline 1,055 \end{array}$$

So, the cash register now has \$1,055.

Check The estimate is \$1,000. This is close to the actual amount, which is \$1,055. So, the answer is reasonable.



Problem Solving

Mathematical PRACTICE



Use Algebra Write an equation to solve each problem. Use a variable for the unknown.

1. Trent's mom gave him \$30. He earned another \$12 completing chores. Trent spent \$15 at the movie theater and \$6 on lunch. How much money does Trent have?

$$\underline{\$30 + \$12 - \$15 - \$6 = h; h = \$21; \$21}$$

2. The cafeteria ordered 400 paper plates. They used 226 at breakfast. They bought 100 more. Then, they used some plates for lunch. Now there are 78 plates. How many plates did they use at lunch?

$$\underline{400 - 226 + 100 - x = 78; x = 196; 196 \text{ plates}}$$

3. Mia's family has \$150 to spend at the beach for the day. It cost them \$75 to rent a boat and \$35 for lunch. How much money do they have now?

$$\underline{\$150 - \$75 - \$35 = t; t = \$40; \$40}$$

Vocabulary Check



Complete each sentence using the words below.

equation variable

4. A(n) **variable** is a symbol, usually a letter, that is used to represent an unknown, or an amount that has not been identified.
5. A(n) **equation** is a sentence that contains an equals sign (=), showing that both sides of the equals sign are equal.

Test Practice

6. There are 367 boxes of graham crackers at the grocery store. On Monday, 126 boxes are sold and on Tuesday, 92 boxes are sold. On Wednesday, 203 more boxes are delivered. How many boxes are there now? Which equation represents this situation?

- (A) $367 + 126 + 92 - 203 = b$ (B) $367 - 126 - 92 + 203 = b$
(C) $367 + 126 - 92 + 203 = b$ (D) $367 + 126 - 92 + b = 203$