

Homework Journal 1

2.1 Question 4

Leah walks from her house to a bus stop that is 320 yards away.

a. If Leah is 28 yards from her house, how far is she from the bus stop?

$320 - 28 = 292$ yards. This question will use subtraction
↳ once she has walked x b/c its asking how far she is from her house. at a certain point. We are given

b. If Leah is 163.4 yards from her house, how far is she from the bus stop?

$320 - 163.4 = 156.6$ yards. Once again this question is asking us to subtract 320 from the given variable. We want to know the distance from the bus stop.

In this question it was mostly about finding out the distance. It dealt a lot with using equations to find the answer.

c. Let the variable x represent Leah's varying distance from her house (in yards). As Leah walks from her house to the bus stop the value of x varies from 0 to 320.

MAKE SURE TO RE-READ THE QUESTION!!

The answer is from 0 to 320 b/c when Leah is home her distance from home is 0 but when she reaches the bus stop she is 320 yards away from home.

↳ it is not from the bus to her house.

d. How many values does the variable x assume as Leah walks from her house to the bus stop?

$x \rightarrow$ home to bus

The answer would be infinity because you can put any variable from 0-320. There is no variable in between that would make x untrue b/w 0 & 320.

TRY TO LOOK FOR KEY TERMS!!

For this question we were also asked to create equations from the given context. We see that in each question although it might sound some what the same the equations are different because of the wording so we have to be careful about how questions are worded.

2.1 Question 7

A 12 inch candle is lit and steadily burns until it is burned out

a. As the burned length of the candle increases from 4 to 7.5 inches, the remaining length of the candle varies from 8 inches to 4.5 inches.

$$12 - 4 = 8 \quad \text{burned 4 remaining 8 inches}$$

$$12 - 7.5 = 4.5 \quad \text{burned 7.5 remaining 4.5 inches}$$

Since we are asked about the remaining length we have to figure out how much has been burned. We are given

2 variables in this equation. The answer requires 2

answers. We must assume that the variables given will

burned \rightarrow remaining be used. We subtract in order to

Total length is 12 find the answer to the remaining length.

b. Suppose b represents the burned length of the candle in inches (or the number of inches that have burned from the candle since it was lit) write an expression in terms of b that represents the remaining length of the candle (in inches)

$$12 - b \quad \text{we know that the total is 12. we want}$$

an expression in terms of b once the candle has been lit. The length is being burned meaning that the length is decreasing. Therefore, the expression must show that the length is subtracting.

Question 6

Chris & Hillary are 250 feet apart when they start walking toward one another. They are walking at the same speed, so whenever Chris travels some number of feet, Hillary travels the same amount in feet. Let x represent the # of feet Chris has traveled since he started walking toward Hillary.

a. Write an expression in terms of x that represents the # of feet Chris walked toward Hillary since they started walking

x The question is just asking about how many feet they have started walking (Chris in this question). It's not asking from the beginning or from one starting point.

c. Write an expression in terms of x that represents the total number of feet Chris & Hillary have walked toward one another since they started walking.

$2x$ Chris $\rightarrow x \leftarrow$ Hillary Both of them are walking the same x distance. This

This question focused on the creation of expressions Depending on the type of situation we are asked about.

means that the answer is $2x$ since it's will be the same distance walked for ~~either~~ both of them no matter what # you input.

b. Write an expression in terms of x that represents the # of feet Hillary has walked towards Chris since they started walking?

x well we know that Chris walks x amount towards Hillary. We are also given that both of them walk the same distance. This means that the expression should thus be identical to the # of feet she has walked towards him.

LOOK FOR CONTEXT CLUES & OTHER QUESTIONS ANSWERED!!

d. Write an expression in terms of x that represents the distance (in feet) between Chris & Hillary.

$250 - 2x$ We are asked the distance b/w both of them. This question is different TO THE OTHER QUESTIONS b/c it's not talking about how many ASKED!!

feet one has walked to the other but rather how much distance is STILL left from one another. We know the total is 250 feet apart. This means we subtract by x to determine how far apart they still are after x amount.

1.3 Question 2

a. Some # is equal to $\frac{1}{4}$ of the sum of 84.1, -27.5, & 61. What is the #?

PAY CLOSE ATTENTION TO WORDING!!

We have to add the #'s that we are given according to the question. $84.1 + 61 - 27.5 = 117.6 / 4 \rightarrow 29.4$ Once we have the sum we divide by 4 in order to find what $\frac{1}{4}$ is. We don't divide into $\frac{1}{4}$ b/c that is what we are trying to find.

b. 55 is some multiple of 11. What is the value of the multiple?

$$55 \div 11 = 5$$

$$11 \cdot 5 = 55$$

Another way of thinking about multiple is what 2 numbers are equal to 55.

We know that one of these #'s is 11 and thus we can divide $55 \div 11$ to find the answer.

c. 1625 is 3.5 times as large as some number. What is the #

1625 is the large #

It is 3.5 larger than another # Although the wording might sometimes be

$$1625 = 3.5x$$

worded differently or sound off

$x = 464.2857$ we should try to break it apart.

After reading the question we see that 1625 is the largest #. When we want to find another # in this instance a # that is 3.5 smaller we simply divide. It all depends on the wording so watch out.

d. 240% of some number is 50.8. What is the #?

$$240\% \cdot x = 50.8$$

$$50.8 \cdot \frac{100}{240}$$

$$21.17$$

We know the # we were going to equal it to. We are also given

240%. With this we can write an

equation to figure out what # equals

to 50.8. Since we are dealing with %

we must ~~multiply~~ ^{multiply} ~~divide~~ by 100. From this we

can multiply the percentage by the answer we get once

we multiply our total by 100 to get our answer.

This question focused on finding the answer when we are given some of the variables. We have to figure out what type of equation to apply.