Homework Assignment format

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Using these, steps solve the following BRAIN TICKLERS

* Step 1: Understand the problem
* Step 2: Plan a strategy
* Step 3: Do the plan
* Step 4: Check your answer

BRAIN TICKLERS

Set #4

Solve each word problem by reading it carefully and thoroughly, planning a strategy, estimating the answer, doing the plan, and then checking your work. Then, in your own words, list the steps you used to solve the problem.

The solution box following the problems contains the answers to the problems. As you answer each problem, cross out the answer in the solution box. Use the number that is not crossed out to answer the following question:

For the movie The Wizard of Oz, how many pairs of shoes were dyed emerald green for the final procession?

1. Felicia Fielder has 75 more baseball cards in her collection than Ben Basehart has in his collection. Ben has 248 cards in his collection. How many cards are in Felicia’s collection?
2. There are 24 players on the Quails softball team and 27 players on the Ducks softball team. There are 18 fewer players on the Buzzards football team than on both softball teams combined. Find the number of players on the Buzzards football team.
3. Jacob Jogger and Lisa Lap entered an 8-mile walkathon to raise money for a local food pantry. Jacob had 12 sponsors who each pledged $4 per mile, and Lisa had 18 sponsors who each pledged $2 per mile. If Jacob and Lisa both walked the entire route, how much more money did Jacob receive from his sponsors than Lisa received from her sponsors?
4. Boris Banker had $1,000 in his checking account. On Monday he made a deposit of $250, and on Thursday he made a withdrawal of $540. After his withdrawal, how much money was in Boris’ account?
5. A cubit is an ancient measure found by measuring the distance from a person’s elbow to the tip of the middle finger. Josh’s cubit measures 20 inches long. How many of Josh’s cubits would it take to form a line reaching one mile long? (1mile = 5,280 feet).
6. Kareem Korrect scored 73, 85, 81, and 71 on his last four math tests. He has one more math test. A total score of 400 on the five tests will give Kareem an average of 80. What must Kareem score on the fifth test to have an average of 80?
7. A parking garage charges $6 for the first hour and $5 for each additional hour or part of an hour. If you park your car from 1:00 PM to 5:30 PM, what will be the parking cost?
8. Sorelle Songstreet bought a new stereo system. She gave a $25 deposit and agreed to pay the remainder in installments of $15 per month for the next two years. What is the total cost of the stereo system?
9. A class of sixth graders sold school stationery as a fundraiser. Boxes of notepaper cost $12 per box, and boxes of note cards cost $8 per box. The class sold a total of 55 boxes of notepaper and collected a total of $1,236 for all stationery sold. How many boxes of note cards did the class sell?
10. Art Auto and his three friends bought a used car for $1,250. They fixed it up by spending $575 on parts and repairs. They then sold the car for $4,605. If Art and his friends shared the profit equally, how much of the profit did each person receive?

*33 90*

*710 3168 385*

*26 695 72*

*323 300 96*

WORD PROBLEMS: FIND THE INFORMATION

A word problem’s information

May be found in a display,

A chart, a table, or a list.

Search and solve for an answer today.

Have you ever searched a menu for favorite foods and then found the total cost of your meal? If so, you have already learned another word problem strategy: finding data (numerical information) needed to solve a problem in a display.

Data can be displayed in many forms. Here are some examples: calendars, menus, train schedules, television guides, sales order forms, recipes, banking forms, and highway signs. Think of other ways in which you can see data displayed. The world is full of charts and tables, and it is important to know how to read them.

EXAMPLE:

Zuzu ordered a Megaburger and French fries. George ordered a hamburger and an apple pie. Use the chart below to find how many more calories were in Zuzu’s order than in George’s order.

Burger Buddy Nutrition Guide

|  |  |  |
| --- | --- | --- |
| Item | Calories | Grams of fat |
| Megaburger | 640 | 39 |
| Hamburger | 260 | 10 |
| French fries | 372 | 20 |
| Chicken tenders | 236 | 13 |
| Apple pie | 320 | 14 |
|  |  |  |

Step 2: Plan a stragegy.

What operations are suggested? Addition to find the total number of calories in Zuzu’s order; addition to find the total number of calories in George’s orer: then subtraction to find how many more calories were in Zuzu’s order than George’s order.

Estimate the answer: about 400 calories (Zuzu’s order has over 300 + 600 = 900 calories; George’s order has over 200 + 300 = 500 calories; and 900 – 500 = 400.)

Step 3: Do the plan.

Look at the chart and its three columns titled Item, Calories, and Grams of fat. Which columns will we need to solve the problem? Since the question deals only with food items and the number of calories in each item, we need use only the first two columns.

For Zuzu’s order, look down the Item column for the Megaburger. Look straight across to the Calories column to find the number of calories in the Megaburger (640). A Megaburger has 640 calories. Doing the same for French fries, you find that they have 372 calories.

To find the total calories in Zuzu’s order, add: 640 + 372 = 1,012.

For George’s order, look down the Item column for the hamburger. Looking straight across to the Calories column you find that a hamburger has 260 calories. Doing the same for an apple pie, you find that it has 372 calories.

To find the total calories in George’s order, add: 260 + 320 = 580.

Zuzu’s order has more calories. Therefore, subtract the number of calories in George’s order from the number in Zuzu’s order.

1,012 – 580 = 432

Zuzu’s order has 432 more calories than George’s order

Step 4; Check your work.

First check the additions with subtractions.

Zuzu’s order: 1,012 (total calories) – 372 (calories from the French fries) = 640 (calories from the Megaburger, or, alternately, 1,012 – 640 = 372 (calories from the French fries) Correct!

George’s order: 580 (total calories) – 260 (calories from the hamburger) = 320 (calories from the apple pie), or, alternatively, 580 – 320 = 260 (calories from the hamburger) Correct!

Next, check the subtraction with addition.

580 (George’s total calories) + 432 (more calories in Zuzu’s order) = 1,012 (total calories in Zuzu’s order) Correct again!

EXAMPLE:

Rachel’s family took a car trip from Boston to Cleveland. Hyun’s family took a car trip from Cleveland to New York and then from New York to Boston. Whose family drove the greater distance? How many kilometers more?

Distance Chart (in kilometers)

Arrival City

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Departure City | Boston, MA | New York, NY | Cleveland, OH | Los Angeles, CA |
| Boston, MA | -------- | 350 | 1,035 | 5,040 |
| New York, NY | 350 | ------- | 810 | 4,685 |
| Cleveland, OH | 1,035 | 810 | ----- | 4000 |
| Los Angeles, CA | 5,040 | 4,685 | 4,000 | ----- |
|  |  |  |  |  |

Step 2: Plan a strategy: Find the information.

What operations are suggested? Addition to find the total kilometers that Hyun’s family drove; subtraction to find the number of kilometers more that one family drove than the other family

Estimate the answer. Hyun’s family drove about 100 kilometers more than Rachel’s family (Hyun’s family drove about 800 + 350 = 1,150 kilometers, while Rachel’s family drove a little over 1,000 kilometers.)

Step 3: Do the plan.

You need to find the total distances traveled by both families and then compare them to see whose family drove the greater total distance. Then you can calculate how many more kilometers one family traveled than the other.

Look for words that may help you use the chart correctly. If Rachel’s family went from Boston, it means that Boston was the starting point, or the point of departure. Going to Cleveland implies that Cleveland was the destination, or the point of arrival. Look under “Departure City” to find Boston. Put your finger or a pencil on Boston. Move across until you are in the column labeled “Cleveland, OH.” Your finger should be on the number 1,035. It is 1,035 kilometers from Boston to Cleveland.

Do the same for Hyun’s family. Hyun’s family went from Cleveland (Cleveland is the departure city) to New York (New York is the first arrival city). Look under the “Departure City” column for Cleveland. Move straight across to the column labeled “New York, NY.” You should be on the number 810. Hyun’s family traveled 810 kilometers from Cleveland to New York.

The family then left New York and traveled to Boston. Find New York under the column “Departure city,” and then move straight across to the column labeled “Boston, MA.” Are you now on the number 350? Good! You are doing great!

Now, let’s finish the problem. Hyun’s total distance is the distance traveled to New York (810 kilometers) combined with the distance traveled to Boston (350 kilometers). To find the total distance, add the two distances.

810 km + 350 km = 1,160 km

Rachel’s family traveled 1,035 kilometers and Hyun’s family traveled 1,160 kilometers. Which family traveled the greater distance? The number 1,160 is greater than 1,035, so Hyun’s family traveled the greater distance. How many more kilometers did Hyun’s family travel than Rachel’s family? Subtract to find how many more.

1,160 km – 1,035 km = 125 km

Hyun’s family traveled 125 kilometers more than Rachel’s family.

Step 4: Check your work.

First, check to make sure you read the table correctly.

The distance from Boston to Cleveland is 1,035 kilometers.

The distance from Cleveland to New York is 810 kilometers.

The distance from New York to Boston is 350 kilometers.

Second, check the total distance that Hyun’s family traveled. The total distance (1,160 kilometers) was found by addition. Check the addition by subtraction.

1,160 km – 810 km = 350 km, or

1,160 km – 350 km = 810 km

Last, check the 125-kilometer difference with addition.

125 km + 1,035 km = 1,160 km

Learning how to solve a problem

Takes time, but don’t fret;

As we sharpen our word problem skills

The easier it will get!