

Lesson 28

Course 2-Teacher Notes

Objective: TSW solve two-step word problems. TSW calculate the average or mean of a list of numbers.

So far we have learned about these six one-step word problem themes "plots"

1. Combining
2. Separating
3. Comparing
4. Elapsed Time
5. Equal Groups
6. Part of a Whole

Word problems often require more than one step to solve. In this lesson, we will continue practicing problems that require multiple steps to solve. These problems involve two or more of the themes mentioned above.

Example 1.

Julie went to the store with \$20. If she bought 8 cans of dog food for 67¢ per can, how much money did she have left?

**This is a two step problem. The first step is an equal groups theme.

Number in group	→	\$0.67 each can
Number of groups	→	× <u>8 cans</u>
Total	→	<u>\$5.36</u>

Now we can find out how much money Julie had left. This second step is about separating.

$$\begin{array}{r} \$20.00 \\ - \$5.36 \\ \hline \$14.64 \end{array}$$

After spending \$5.36 of her \$20 on dog food, Julie had **\$14.64** left.

Calculating an average is often a two-step process. As an example, look at these coins:



There are 15 coins in all. If we made all the stacks the same size, there would be 3 coins in each stack.



Predict: If there were 20 coins in all, and we made all the stacks the same size, how many coins would be in each stack? 4

To find the () average- find the sum of all the numbers, then divide by the number of numbers.

Example 2.

There are 4 squads. Find the average number of players.

Squad A has 7 players

Squad B has 9 players

Squad C has 6 players

Squad D has 10 players.

Find the sum of all the players:

$$7 + 9 + 6 + 10 = 32 \text{ players}$$

Next, divide by the number of squads

$$32 / 4 = 8$$

The average is 8 players per squad.

Example 3.

When people were seated, there were 3 in the first row, 8 in the second row, and 10 in the third row.

What was the average number of people in each of the first three rows?

$$3 + 8 + 10 = 21$$

$$21/3 = 7 \text{ ppl in each row}$$

Another name for average is () mean. We find the mean of a set of number by adding the numbers and then dividing the sum by the number of numbers.

Example 4.

In a word game, five students in the class scored 100 points, four scored 95, six scored 90, and five scored 80. What was the mean of the scores?

$$5 \times 100 = 500$$

$$4 \times 95 = 380$$

$$6 \times 90 = 540$$

$$5 \times 80 = 400$$

$$500 + 380 + 540 + 400 = 1820$$

$$1820/20 \text{ (number of students)} = 91$$

The mean score was 91

CW: 1-3, 7-8, 13, 23-24, 9, 21, 22, 26, 28

HW: 4-6, 10-12, 14-20, 25, 27, 29-30