

Lesson Plan #2: Clue Words (Subtraction and Division)

Performance Objective: Given division and subtraction word problems, correctly identify two key words that indicate the correct operation to use and solve each problem accurately.

Resources or Materials Needed: Student notebooks or white boards and markers, printed group, partner, and individual test questions, magnifying glass interactive notebook page – only the addition and multiplication portion or continue the online version from the previous lesson. (Resources for this lesson came from ‘Interactive Math Journals: CUBES Problem-Solving Entries, which was bought from Teachers Pay Teachers at <https://www.teacherspayteachers.com/Store/Rundes-Room>. I also got the word problems from Jennifer Findley’s word problem set on Teachers Pay Teachers, <https://www.teacherspayteachers.com/Store/Jennifer-Findley>.)

Time: 1 hour

Step 1: Pre-Instructional Activities: Discuss the key words discussed in the previous lesson for addition and multiplication. Were there any key words that could be used for addition and multiplication? How could you tell which operation to use for solving the problem? Do you think there will be similar words for the subtraction and division key words?

Step 2: Content Presentation: Have students open their notebooks up to the page they wrote in and glued the magnifying glasses on in the previous lesson. Write the following operations on the board: subtraction and division. Brainstorm key words that signal each of those operations and write a list under each operation. Continue until all of the words are on the board (teacher will suggest missing words).

Example key words:

- Subtraction – fewer, left, less than, take away, minus, decreased, remain, difference, how many more ...

- Division – quotient, half, shared, dividend, divided, equally, out of, same, grouped, even, separated ... (Runde, 1970)

Hand out the interactive tool to students. Have them cut, fold, and glue the magnifying glasses to the page under the learning goal. When they have that glued in, let them copy down the list of key words that the class brainstormed to the inside of their magnifying glasses. If using the online version of these notes, have students open the Google Slide ‘Clue Words Interactive’ and fill in the key words for subtraction and division.

Display a word problem and demonstrate how to find the key words and determine which operations the students must do to solve.

Step 3: Learner Participation: Hand out partner word problems. Students will work on two more word problems with their shoulder partners, following the same process that the whole group used. Have the pairs share their processes with other partners at their table and check for accuracy. The learners are participating throughout the lesson during whole group discussion and will be working on the word problems in their math journals and on white boards.

Step 4: Assessment: Hand out individual word problems for students to work out on their own, following the same procedure used in both whole group and partner work. Students’ tests can be turned in for the teacher to correct or shared with partners to check answers and understanding (with correcting tool). Teacher monitors room to check for understanding and ask questions.

Step 5: Follow-Through Activities: The teacher could have more practice questions if the students are not understanding the concept with the questions provided. Review key words that were found during instruction and what operation was used to solve those problems. Did the students find words that were confusing? How did they decide which operation to use?

Lesson Plan Summary: This lesson is the second portion of the previous lesson. Because of this, the instructional strategies are the same for both lessons. The instructional strategies used in this lesson plan

is primarily using a graphic organizer, discussion, and practicing the skills learned. The cognitivist learning theory is supported by these strategies because the students are able to organize the new information in a graphic organizer, analyze, and process information. They can also discuss and reflect on new skills, practice done, and improvements made. Lastly, the students are able to practice new skills with the appropriate strategies and get immediate feedback by peers and the teacher for guidance. For all of these reasons, the lesson plan is supported by the cognitivist learning theory.

Name _____

An apartment complex is being put on the market for a selling price of \$850,000. The owner receives an offer of \$775,550. How much lower is the offer than the selling price?

Olivia's mom made treat bags for Olivia's class for her 10th birthday party. She used 462 pieces of candy in all. If she put 14 pieces of candy in each bag, how many treat bags did Olivia's mom make?

A movie released in theaters sold 548,963 tickets during the opening weekend. The movie was projected to sell 550,000 tickets. How far under the projection was the actual ticket sales?

Esmerelda walked dogs for her part-time job. She was running a special that she would walk a dog for four days a week for \$25. In a week, she made \$425 from that special. How many dogs did she walk at that special price?

Last year, an online toy store sold 176,542 toys during the holiday season. This year, they have a goal to sell 250,000 toys. How many more toys do they need to sell this year compared to last year to meet their goal?

The CEO of Bugs Spray, Inc. took the employees with perfect attendance out to eat at a buffet. The cost per person was \$14. The bill for the employees' part of the meal was \$518, including tax. How many total employees were taken out for dinner?

A house is listed on the market at \$256,750. After 60 days on the market, the owner decreases the price to \$231,500. How much was the price lowered by?

Tomas was flying from New York to visit his brother in Paris. From takeoff to landing, it was exactly 12 hours. The map he had showed that he had traveled approximately 6,000 miles. About how fast was the plane traveling?

Name Answer key

An apartment complex is being put on the market for a selling price of \$850,000. The owner receives an offer of \$775,550. How much lower is the offer than the selling price?

74,450
(subtraction)

Olivia's mom made treat bags for Olivia's class for her 10th birthday party. She used 462 pieces of candy in all. If she put 14 pieces of candy in each bag, how many treat bags did Olivia's mom make?

35 treat bags
(division)

A movie released in theaters sold 548,963 tickets during the opening weekend. The movie was projected to sell 550,000 tickets. How far under the projection was the actual ticket sales?

1,037 tickets
(subtraction)

Esmerelda walked dogs for her part-time job. She was running a special that she would walk a dog for four days a week for \$25. In a week, she made \$425 from that special. How many dogs did she walk at that special price?

17 dogs (division)

Last year, an online toy store sold 176,542 toys during the holiday season. This year, they have a goal to sell 250,000 toys. How many more toys do they need to sell this year compared to last year to meet their goal?

73,458 toys
(subtraction)

The CEO of Bugs Spray, Inc. took the employees with perfect attendance out to eat at a buffet. The cost per person was \$14. The bill for the employees' part of the meal was \$518, including tax. How many total employees were taken out for dinner?

37 employees
(division)

A house is listed on the market at \$256,750. After 60 days on the market, the owner decreases the price to \$231,500. How much was the price lowered by?

\$25,250
(subtraction)

Tomas was flying from New York to visit his brother in Paris. From takeoff to landing, it was exactly 12 hours. The map he had showed that he had traveled approximately 6,000 miles. About how fast was the plane traveling?

about 500 miles
per hour
(division)

Lesson 2 - Partner questions

Name _____

1. A museum has a goal of 400,000 annual visitors. By June, they have had 197,574 visitors. How many more visitors are needed to reach their goal?
2. Mary sent out invitations to her wedding last week. The invitations were heavy, so she put more than just one stamp on each envelope. She used 255 stamps and mailed out 85 invitations. If she used an equal amount of stamps on each envelope, how many stamps did she place on each envelope?

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Lesson 2 - Partner questions

Name Answer key-----

1. A museum has a goal of 400,000 annual visitors. By June, they have had 197,574 visitors. How many more visitors are needed to reach their goal?

202,426 visitors
(subtraction)

2. Mary sent out invitations to her wedding last week. The invitations were heavy, so she put more than just one stamp on each envelope. She used 255 stamps and mailed out 85 invitations. If she used an equal amount of stamps on each envelope, how many stamps did she place on each envelope?

3 stamps
(division)

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Lesson 2 - Individual Quiz

Name _____

1. Omar recently earned \$49.87 babysitting his little brother and doing odd chores around the house. When he went to the mall over the weekend, he spent \$22.29 of the money he had earned on a new video game. How much money did Omar have remaining after his purchase?
2. Yansu planted a tree a few years ago. He measures the circumference of the trunk each year to see how it has grown. Last year, he measured it to be 5.85 inches. When he measured it this year, it measured 7.1 inches. How much did it grow during the past year?
3. Payton is walking to school for National Walk to School Day. She lives 3.25 blocks away from the school, and she has already walked 1.5 blocks. How many more blocks does she have to walk to get to school?
4. Sydney went to the grocery store to buy apples. She bought 6 apples and spent \$1.80. If each apple was an equal price, determine the cost of one apple.

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- Omar recently earned \$49.87 babysitting his little brother and doing odd chores around the house. When he went to the mall over the weekend, he spent \$22.29 of the money he had earned on a new video game. How much money did Omar have remaining after his purchase?
\$27.58
(subtraction)
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1.25 inches
(subtraction)
- Payton is walking to school for National Walk to School Day. She lives 3.25 blocks away from the school, and she has already walked 1.5 blocks. How many more blocks does she have to walk to get to school?
1.75 blocks
(subtraction)
- Sydney went to the grocery store to buy apples. She bought 6 apples and spent \$1.80. If each apple was an equal price, determine the cost of one apple.
\$0.30 (division)

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