

## **Practical Operations: Choose the Correct Operation**

**STRAND:** Computation and Estimation

**STRAND CONCEPT:** Practical Applications-Rational Numbers and Proportional Reasoning

**SOL 5.4**

### ***Remediation Plan Summary***

Students will solve multistep practical problems, using a variety of mathematical strategies.

### ***Common Errors and Misconceptions***

The most common issue students have is understanding the word problem and what it is asking them to solve. They do not know which operation to choose and most often choose addition. Teaching key words is not recommended. Teachers should model the action in the story so the students understand the action of the story.

### ***Materials***

- Choose the correct operation worksheet
- Using different strategies worksheet

### ***Introductory Activity***

- Have students complete the “Choose the Correct Operation” worksheet. Identifying the operation to be used will increase students’ familiarity with word-problem language and help them identify strategies to solve such problems.

### ***Plan for Instruction***

1. Lead a class discussion about ways to figure out what to do to solve a word problem. Ask students whether in the warm-up problems, they did anything differently in Step 2 from what they did in Step 1. Have students explain what strategies they used to decide on each operation. Listen carefully to their explanations, which will give valuable insight into the way they approach problem solving.
2. Create and post a class list of the strategies students employ to decide on the correct operations. Give a name to each strategy. Prompt thinking by asking such questions as: “*Are there any other strategies you could add to this list? Which strategies do you use often? Which strategies do you use rarely? Why?*”
3. Have the student pairs complete the “Using Different Strategies” worksheet, but ask them to leave the last column (Strategy Used) empty for now. Allow them time to complete the entire problem set. Give assistance when needed. When everyone is finished, review responses, and clear up any errors.
4. Refer the students back to the list of strategies discussed previously, and have them write in on the “Using Different Strategies” worksheet the strategy they used to solve each problem. Ask each student to explain his/her choices.

***Pulling It All Together (Reflection)***

Have students complete the “Reflection” worksheet individually

**Note: The following pages are intended for classroom use for students as a visual aid to learning.**

Virginia Department of Education 2018

Name: \_\_\_\_\_

Choose the Correct Operation

Read each word problem, and circle the operation or operations you'll use to solve it. Then show the steps used to solve it.

| Word Problem  | Operation   | Step 1 | Step 2 |
|---|---|--------|--------|
| 1. Allison paid for 3 school lunches at \$3 each. She gave the office \$20. How much change will she receive?   | Addition<br>Subtraction<br>Multiplication<br>Division |        |        |
| 2. The Drama Club is sewing their costumes for the play. One type of ribbon is \$2 per yard, and they bought 3 yards. A second type of ribbon is \$12 per yard, and they bought 5 yards. What was the cost of all the ribbon they bought? | Addition<br>Subtraction<br>Multiplication<br>Division |        |        |
| 3. Don is fencing in his yard. He is also painting the fence white. Each of the 4 sides of the lawn is 15 ft. Each gallon of paint covers 20 feet. How much fencing and gallons of paint will Don need to buy?                            | Addition<br>Subtraction<br>Multiplication<br>Division |        |        |
| 4. Susan bought 5 highlighters for \$2 each and 4 pencils for \$1 each. How much change will Susan receive if she pays \$15?  | Addition<br>Subtraction<br>Multiplication<br>Division |        |        |
| 5. Marissa bought a new pair of jeans. The original price was \$56, but she saved \$19 by buying them on sale. She paid \$40. How much change did Marissa receive?  | Addition<br>Subtraction<br>Multiplication<br>Division |        |        |

Name: \_\_\_\_\_

Using Different Strategies

Read each word problem. Then, show the steps for solving it, and write the answer. Finally, describe the strategy you used.

| Word Problem   | Steps | Answer | Strategy Used |
|--|-------|--------|---------------|
| 1. Angela’s soccer team washed 32 cars on Saturday. Each customer paid \$3.00 for the wash. Did her team earn the \$80 they needed for their new uniforms? How much did the team earn?                                     |       |        |               |
| 2. Mark is having a picnic. He will prepare 3 hot dogs for each guest. There are 49 people coming. How many hot dogs will Mark prepare?  |       |        |               |
| 3. Mr. Miller works 8 hours a day. Mrs. Miller works 6 hours a day. If Mr. Miller worked 96 hours in 2 weeks, how many hours did Mrs. Miller work during the same time?  |       |        |               |
| 4. Scott invited his friends over for pizza. Scott ate 6 slices. His friend Billy ate half as much as Scott. David ate twice as many slices as Billy but 4 fewer than Terrence. How many slices of pizza did each boy eat? |       |        |               |

**Name:** .

Reflection

Solve each released SOL test question. Then, give a brief explanation of the strategy you used.

1. A flight engineer for an airline flies an average of 2,923 miles per week. Which is the best estimate of the number of miles she flies in 3 years?

Solve the problem and show your work. Make sure you include a strategy.

2. Last season, Ellen and Janet together won 32 tennis matches. Ellen won 6 more matches than Janet. How many matches did Ellen win?

Solve the problem and show your work. Make sure you include a strategy.