

Directions: Order each set of integers from least to greatest.

16. $-2, 5, 1, -15$ _____

17. $1, 8, -9, 13$ _____

18. $-15, -14, -12, 0, -11$ _____

Directions: Add, subtract, multiply, or divide each pair as indicated.

19. $-8 + 16 =$ _____

20. $-10 + -24 =$ _____

21. $12 - 25 =$ _____

22. $1 - 4 =$ _____

23. $2 - 16 =$ _____

24. $3 - (-10) =$ _____

25. $(-12)(10) =$ _____

26. $-9 \times 8 =$ _____

27. $-14 \div -7 =$ _____

28. $-108 \div -12 =$ _____

SAMPLE

Lesson 178

Solving Word Problems

As you near the end of your study of Math 6, you will learn how to solve any type of word problem using a 4-step problem solving model. This problem solving model can help you solve word problems using multiplication, fractions, percents and ratios, geometry, probability and algebra. It can be used for any story problem that you encounter.

The 4-step problem solving model can be seen below:

Step 1: Understand the problem

The key to completing this step is to truly and completely understand what the problem is asking. You need to know what you are solving for, and get rid of any pieces of information from the problem that you do not need.

Step 2: Plan

In this step, you need to plan out how you will solve the problem by examining what pieces of information you have been given that you need, and develop a plan and procedure for placing those pieces where they should be in the problem or equation you will need to set up to solve.

Step 3: Implement the plan

In this step, you will actually solve the problem you have set up or the equation you have developed. Remember to check to make sure you have solved for the information the problem or question is asking you to find.

Step 4: Check your answer

It is a good idea to always go back and put your answer back into the problem to see if it makes sense to the problem. If it does not, you need to redo steps 1-3.

An example of the 4-step process being utilized in a word problem can be seen below.

At school, ice cream cones sell for \$1.25. Amy buys one for herself and one for each of her three friends. How much change will she get back from a \$20.00 bill?

Step 1: Understand the problem. You need to know what you are solving for. In this problem, you will need to know how much money Amy spent total on all 4 ice cream cones, and then find the difference between that sum and \$20.00

Step 2: Plan. You already planned a little in step 1, but ultimately, the plan will be to multiply \$1.25 by 4 to get the total Amy spent, and then to subtract this total from \$20.00

Step 3: Implement. This is where you actually solve the problem. $\$1.25 \times 4 = \5.00 . Therefore, Amy spent \$5.00. Now, subtracting $\$20.00 - \5.00 gives a remainder of \$15.00 that Amy will have in change.

Step 4: Check the answer. Does \$15.00 make sense as an answer? Yes

Lesson Wrap-Up: You could really apply these four steps to any problem you encounter in life, whether it is a Math problem or involves something else. This process is a very logical way to approach any problem.

SAMPLE

Worksheet 178

Directions: Solve each word problem below by going through the 4-step problem solving model in each problem, illustrating each component of the process.

1. Anna has 5 red shirts, 3 pink shirts, and 3 yellow shirts. If she closes her eyes and chooses one shirt at random to wear on Compliments Day, what is the probability that she will not choose a yellow shirt?

2. Mrs. Jones is planning a barbecue for Mardi Gras Day. She will serve tea or coffee, barbecued chicken or ribs, and coleslaw or potato salad. How many combinations of choices of a beverage, a meat, and a salad does she have for her party?

3. Is there any pair of numbers whose product is the same as its sum?

4. In a creek bed, $\frac{1}{6}$ of the gravel is less than 5 mm in diameter and $\frac{1}{2}$ of it is between 5 and 10 mm in diameter. What fraction of the gravel is greater than one centimeter in diameter?

5. Devin found the sum of the first three even numbers and obtained a result of 48. Oops. What mistake must he have made and what is the correct answer?

6. In a weird new card game, Sierra scored 38,102 points during the first round. She scored two times that many points during the second round. How many points did she score in total during both rounds together?
