

## Missing and Extraneous (Too Much) Information

Some problems cannot be solved because some piece of needed information is missing. Also, some problems include information you do not need to find the answer. Read each problem carefully to determine what information you need and whether it is provided.

**Example 1:** To wallpaper an entire bedroom, Jeff needs 880 square feet of wallpaper. If a roll of wallpaper covers 75 square feet, how much money does Jeff need to purchase the wallpaper for this room?

Using the steps for solving word problems on page 11, solve the problem above.

**Step 1** Read the problem carefully and underline key words (*how much*).

**Step 2** The facts are:

- A. 880 square feet of wallpaper are needed.
- B. One roll of wallpaper covers 75 square feet.

**Step 3** You want to know:

How much money is needed to purchase the wallpaper?

**Step 4** Review your facts. This problem cannot be solved because you are not given an important piece of information: the selling price of the wallpaper per roll.

It is equally important to be able to recognize that some problems have too much information. Sometimes it is not necessary to use all the numbers that appear in word problems.

**Example 2:** The Booster Club sponsored a dinner dance to raise money to buy team uniforms. Eighty couples attended the dance at \$28 per couple. After paying the expenses for the dance, the club was able to buy half of its team's uniforms which cost \$15 per uniform. How much money was collected before expenses?

Follow the steps below.

**Step 1** Read the problem carefully and underline key words (*how much*).

**Step 2** The facts are:

- A. Eighty couples attended the dance.
- B. Each couple paid \$28.
- C. Uniforms cost \$15 each.
- D. The club could buy  $\frac{1}{2}$  of the uniforms after expenses.

**Step 3** You want to know: How much money was collected before expenses?

**Step 4** Only one operation is necessary. Eighty couples attended and each paid \$28. Multiply the price of the ticket by the number of couples attending the dance.

**Step 5** Round \$28 up to \$30. The estimated answer is:

$$\$30 \times 80 = \$2,400.$$

**Step 6** Carry out the operation to find the exact answer:

$$\$28 \times 80 = \$2,240$$

**Step 7** Review your estimated answer against the exact answer.

Those answers should be similar.

Two pieces of information are included in the problem that are not necessary to answer the question asked. The unnecessary information was the cost of the uniforms and the club's ability to buy half of the uniforms they needed.

## Missing and Extraneous (Too Much) Information: Practice

Directions: Each problem below is missing information. On the lines below, write the missing information that is needed to solve each problem.

1. The city advisory council has 150 representatives. The representatives are Republicans, Democrats, and Independents. Forty-five of the representatives are Democrats. How many of the representatives are Independents?  
To determine the number of Independents, the missing piece of information is \_\_\_\_\_

2. An inheritance of \$8,000 is to be shared equally by the members of the Marble family. What is each family member's share?  
To determine the dollar amount for each family member, the missing piece of information is \_\_\_\_\_

3. The Beverly Cycle Shop recorded sales of \$4,567 for the total number of bicycles sold in June. What was the average cost per bicycle?  
To determine the average cost per bicycle, the missing piece of information is \_\_\_\_\_

Directions: Each problem below has too much information. Identify the extra information, and then solve the problem. Write your answers on the lines provided.

4. Norma applied for a new position at the hospital. Her annual salary is \$15,750. The new position has an annual base salary of \$18,750. Norma must pay \$325 for union dues. What is the amount of the difference between the two salaries?

The extra information is \_\_\_\_\_

The answer is \_\_\_\_\_

5.

	<i>Times</i>	<i>Tribune</i>	<i>USA Daily</i>
Monday	523	288	151
Tuesday	536	254	79
Wednesday	511	352	87
Thursday	524	323	123
Friday	<u>537</u>	<u>357</u>	<u>147</u>
	2,631	1,574	587

How many more *Times* were sold than *USA Daily* for the five days?

The extra information is \_\_\_\_\_

The answer is \_\_\_\_\_