

1.7c

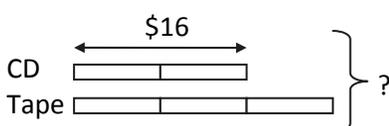
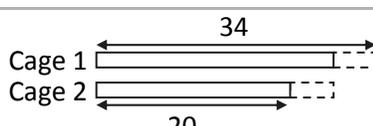
Word Problems

Objectives

- ◆ Solve word problems.

Note

If possible, write the problems in the learning tasks on the board and have students work out their own solutions and diagrams. Have students share their diagrams. There is not a single method or approach to modeling these problems and students should view models as a means to take notes on the pertinent information in a problem. Sometimes the first model used does not lead to a solution and can be revised or redrawn. There is no fixed way of drawing the model for any problem.

Discussion	Text p. 24
<p><i>Task 3:</i> This is a part-whole type of problem similar to the problem in lesson 1.7a of this guide. Note that the model in the textbook does not include the change and the total amount spent is found before drawing the model. This illustrates that model drawing can be used where needed, but does not have to be used or drawn for every step of every problem.</p> <p><i>Task 4:</i> Again, not all information is included in the diagram. In the solution in the text, a diagram is used to find the cost of the videotape, and then that information is used to find the cost of 3 videotapes.</p> <p>An alternate model for Task 4 is shown at the right, where the CD is 2 units since it cost twice as much as a videotape, and three units are used for the 3 video tapes. Although 1 unit is the cost of one videotape, this solution does not explicitly show that as a partial solution.</p>	<p>3. \$9 \$9</p> <p>4. \$40 \$40</p> <div style="text-align: center;">  <p>2 units = \$16 1 unit = $\\$16 \div 2 = \\8 5 units = $(\\$16 \div 2) \times 5 = \\40</p> </div>
Assessment	Appendix p. a15
<p>Give students an opportunity to solve these problems individually, and then discuss some of their solutions. Suggested solutions are given below. These are relatively easy but illustrate some concepts frequently used in the problems in the text or in supplementary books.</p>	
<p>1. Harriet had 34 birds in Cage 1 and 20 in Cage 2. She moved some birds from Cage 1 to Cage 2 so that they now both have the same number of birds. How many birds did she transfer?</p> <p>Since both cages end up with the same number of birds, this gives a starting point in comparing the two quantities. The total does not change. We can draw two equal bars, then show the amount that was transferred from Cage 1 to Cage 2, and then label the bars with the starting amounts. Notice that in order to have the same amount in both cages, we need to transfer half the difference between the two cages.</p>	<div style="text-align: center;">  <p>34 – 20 = 14 14 ÷ 2 = 7 Or 2 units = 34 + 20 = 54 1 unit = 54 ÷ 2 = 27 27 – 20 = 7 7 birds were transferred.</p> </div>