NAME _____ DATE _____ PERIOD _____

Lesson 3 Multi-Step Problem Solving

Multi-Step Example

The table shows the price of almonds at three different grocery stores. What is the cost, in dollars per pound, for the cheapest almonds? 7.RP.2b, MP 1

Store	Weight (oz)	Price ($)
A	64	19.96
B	80	21.75
C	112	33.95

Use a problem-solving model to solve this problem.

Read to Succeed!

When you are converting a smaller unit to a larger unit, you need to multiply.

1 Understand

Read the problem. Circle the information you know. Underline what the problem is asking you to find.

2 Plan

What will you need to do to solve the problem? Write your plan in steps.

Step 1 Calculate each _____ and convert to an equivalent rate.

Step 2 Compare the unit rates to determine _____ per pound.

3 Solve

Use your plan to solve the problem. Show your steps.

Store A: $\frac{\$19.96}{64\text{ oz}} \cdot \frac{16\text{ oz}}{1\text{ lb}} = \frac{\$319.36}{64\text{ lb}} =$ _____

Store B: $\frac{\$21.75}{80\text{ oz}} \cdot \frac{16\text{ oz}}{1\text{ lb}} = \frac{\$348}{80\text{ lb}} =$ _____

Store C: $\frac{\$33.95}{112\text{ oz}} \cdot \frac{16\text{ oz}}{1\text{ lb}} = \frac{\$543.20}{112\text{ lb}} =$ _____

Compare the unit rates. _____ < _____ < _____

Store B sells the cheapest almonds for _____ per pound.

4 Check

How do you know your solution is accurate?

_____

_____

_____

NAME _____ DATE _____ PERIOD _____

Lesson 3 *(continued)*

Use a problem-solving model to solve each problem.

1 The table shows the speeds of several runners on a track team. What is the speed, in feet per minute, of the fastest runner? **7.RP.3,** MP **1**

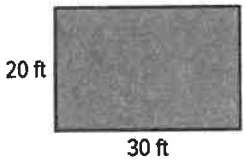
Runner	Distance (yd)	Time (s)
Imani	12	3
Jada	9	2
Tenesha	34	8

_____

2 Lian used her garden hose to fill her 15,000-gallon swimming pool in 5 hours. She plans to graph the fill rate on a coordinate grid, showing the amount of water, in pints, on the *y*-axis and time, in minutes on the *x*-axis . What will be the *y*-value on the coordinate grid at 1 minute? (*Hint:* There are 8 pints in one gallon.) **7.RP.2,** MP **8**

_____

3 Adam painted the rectangular wall shown below in 1 hour. On average, how many square feet did he paint per minute? **7.RP.3,** MP **2**



_____

4 **H.O.T. Problem** Use dimensional analysis to determine whether the rate 3,000 grams per week is 1,000 times faster than 3 kilograms per week. Explain. **7.RP.3,** MP **3**

_____

_____

_____

_____

_____