

# Homework Practice

5-1B

## Rates

Find each unit rate. Round to the nearest hundredth if necessary.

1. \$11.49 for 3 packages
2. 2,550 gallons in 30 days
3. 88 students for 4 classes
4. 15.6°F in 13 minutes
5. 175 Calories in 12 ounces
6. 258.5 miles in 5.5 hours
7. 549 vehicles on 9 acres
8. \$920 for 40 hours
9. 13 apples for 2 pies
10. **MANUFACTURING** A machinist can produce 114 parts in 6 minutes. At this rate, how many parts can the machinist produce in 15 minutes?
11. **RECIPES** A recipe that makes 8 jumbo blueberry muffins calls for  $1\frac{1}{2}$  teaspoons of baking powder. How much baking powder is needed to make 3 dozen jumbo muffins?

Estimate the unit price for each item. Justify your answers.

12. \$299 for 4 tires
13. 3 yards of fabric for \$13.47

14. **UTILITIES** Use the table that shows the average monthly electricity and water usage.

Family Name	Family Size	Electricity (kilowatt-hours)	Water (gal)
Melendez	4	1,560	3,500
Barton	6	2,130	6,400
Stiles	2	1,490	2,500

- a. Which family uses about twice the amount of electricity per person than the other two families? Explain your reasoning.

- b. Which family uses the least amount of water per person? Explain your reasoning.

**Skills Practice****Proportional and Nonproportional Relationships**

5-1C

For Exercises 1–3, use the table of values. Write the ratios in the table to show the relationship between each set of values.

1. <b>Number of Hours</b>	1	2	3	4
<b>Total Amount Earned</b>	\$15	\$30	\$45	\$60
<i>Unit Rate</i>				

2. <b>Number of Packages</b>	1	2	3	4
<b>Total Cost</b>	\$11	\$20	\$29	\$38
<i>Unit Rate</i>				

3. <b>Number of Classrooms</b>	1	2	3	4
<b>Total Students</b>	24	48	72	92
<i>Unit Rate</i>				

For Exercises 4–8 use the table of values. Write *proportional* or *nonproportional*.

4. <b>Number of Hours</b>	1	2	3	4
<b>Total Amount Earned</b>	\$0.99	\$1.98	\$2.97	\$3.96

5. <b>Number of Hours</b>	1	2	3	4
<b>Total Amount Earned</b>	\$17.25	\$35.50	\$50.75	\$70

6. <b>Number of Hours</b>	1	2	3	4
<b>Number of Pages Read in Book</b>	37	73	109	145

7. <b>Number of Lunches</b>	1	2	3	4
<b>Total Cost</b>	\$2.75	\$5.50	\$8.25	\$11

8. Fred is ordering pies for a family reunion. Each pie costs \$4.50. For orders smaller than a dozen pies, there is a \$5 delivery charge. Is the cost proportional to the number of pies ordered? Use a table of values to explain your reasoning.