



## Additional Practice 5-1

### Use Patterns and Mental Math to Divide

### Another Look!

A school spends \$12,000 on 20 new computers.  
Each computer costs the same amount.  
How much does each computer cost?

Find a basic fact, and then use patterns.

A basic fact that can be used for  $12,000 \div 20$  is  
 $12 \div 2 = 6$ .

$$120 \div 20 = 6$$

$$1,200 \div 20 = 60$$

$$12,000 \div 20 = 600$$

Multiply to check:  $600 \times 20 = 12,000$

Each computer costs \$600.

Use place-value  
patterns to help find  
the quotient.



**Leveled Practice** In **1–16**, use mental math to help solve.

1.  $720 \div 90 = 72 \text{ tens} \div 9 \text{ tens} = \underline{8}$

2.  $4,800 \div 60 = 480 \text{ tens} \div 6 \text{ tens} = \underline{80}$

3.  $1,200 \div 30 = \underline{120} \text{ tens} \div \underline{3} \text{ tens} = \underline{40}$

4.  $25,000 \div 50 = \underline{2,500} \text{ tens} \div \underline{5} \text{ tens} = \underline{500}$

5.  $320 \div 40$   
**8**

6.  $9,000 \div 30$   
**300**

7.  $1,800 \div 90$   
**20**

8.  $2,000 \div 40$   
**50**

9.  $24,000 \div 80$   
**300**

10.  $32,000 \div 40$   
**800**

11.  $3,600 \div 90$   
**40**

12.  $40,000 \div 50$   
**800**

13.  $42,000 \div 60$   
**700**

14.  $5,400 \div 60$   
**90**

15.  $49,000 \div 70$   
**700**

16.  $56,000 \div 80$   
**700**



17. A carton of staples has 50 packages. The carton contains 25,000 staples in all. Each package has an equal number of staples. How many staples are in each package? Explain how to use a basic fact to find the answer.

**500 staples;  $25 \div 5 = 5$ . Then use a pattern.  $2,500 \div 5 = 500$ , so  $25,000 \div 50 = 500$ .**

18. A club collected \$3,472 to buy computers. If each computer costs \$680, estimate the number of computers that the club can buy. Explain.

**About 5 computers; round each number to the nearest hundred. 3,472 rounds to 3,500. 680 rounds to 700. Divide:  $3,500 \div 700 = 5$**

19. **Higher Order Thinking** A railroad car container can hold 42,000 pounds. Mr. Evans wants to ship 90 ovens and some freezers in the same container. If each freezer weighs 600 pounds, how many freezers could be shipped in the container? Explain.

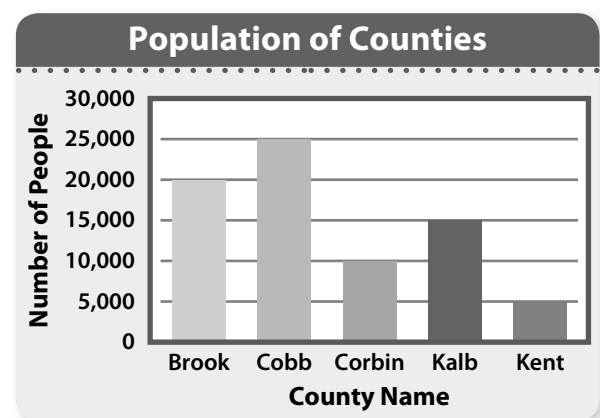
**40 freezers;  $90 \times 200 \text{ lb} = 18,000 \text{ lb}$ ;  $42,000 \text{ lb} - 18,000 \text{ lb} = 24,000 \text{ lb}$ ;  $24,000 \text{ lb} \div 600 \text{ lb} = 40$**



Each oven weighs 200 pounds.

20. **Critique Reasoning** There are 50 communities in Kalb County. Each community has about the same number of people. Marty estimates there are about 300 people living in each community. Is his estimate reasonable? Justify your answer.

**Yes; Sample answer: The graph shows that Kalb County has 15,000 people.  $15,000 \div 50 = 300$**



### Assessment Practice

21. Which is 2,000 divided by 50?

(A) 4  
(B) 40  
(C) 400  
(D) 4,000

22. Which expression has a quotient of 400?

(A)  $800 \div 2$   
(B)  $8,000 \div 2$   
(C)  $8,000 \div 20$   
(D)  $80,000 \div 20$