

# Using Patterns to Divide

In 1 through 4, find each quotient. Use mental math.

1.  $360 \div 40 = 36 \text{ tens} \div 4 \text{ tens} = \underline{9}$

2.  $5,400 \div 90 = 540 \text{ tens} \div 9 \text{ tens} = \underline{60}$

3.  $240 \div 30 = 24 \text{ tens} \div 3 \text{ tens} = \underline{8}$

4.  $4,800 \div 10 = 480 \text{ tens} \div 1 \text{ ten} = \underline{480}$

Use mental math to answer the following questions.

5. If the vehicles are divided evenly among the sections, how many vehicles are in each section?

**300 vehicles**

| Dealership Vehicle Storage |       |
|----------------------------|-------|
| Sections of vehicles       | 4     |
| Vehicles for sale          | 1,200 |
| Rows per section           | 10    |

6. If the vehicles are divided evenly among the rows in each section, how many vehicles are in each row?

**30 vehicles**

7. **Estimation** Suppose there are 297 students going on a field trip. If each schoolbus can carry 58 students, estimate the number of buses that will be needed to transport all the students.

**Since  $\frac{300}{60} = 5$ , about 5 school buses will be needed.**

8. **Algebra** If  $160,000 \div n = 4$ , what is the value of  $n$ ?

A 40

B 400

C 4,000

**D 40,000**

9. **Explain It** Solve the equation  $n \times 50 = 5,000$ . Explain your solution.

**$n = 100$ ; Sample answer: Divide each side by 50.**