Using Patterns to Divide

You can use basic facts and patterns to divide mentally.

Using basic facts	Using patterns
What is $350 \div 70$?	What is $5,400 \div 60$?
Think: $350 \div 70$ is the same as 35 tens $\div$ 7 tens.	$5,400 \div 60$ is the same as $540 \div 6$.
$35 \div 7 = 5$	$54 \div 6 = 9$, so $540 \div 6 = 90$.
So, $350 \div 70 = 5$.	So, $5,400 \div 60 = 90$.

Find each quotient. Use mental math.

1. $280 \div 70 = $ _____

2. $320 \div 40 = $ _____

3. $360 \div 60 = $ _____

4. $7,200 \div 80 = $ _____

5. $9,000 \div 30 = $ _____

6. $4,800 \div 80 = $ _____

7. $2,000 \div 40 = $ _____

8. $5,600 \div 70 = $ _____

9. Number Sense How is dividing 250 by 50 the same as dividing 2,500 by 500?

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10. Explain It Explain how you can mentally determine that $35,000 \div 70 = 500$.

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Name _____

Using Patterns to Divide

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

1. $360 \div 40 =$

2. $5,400 \div 90 =$

3. $240 \div 30 =$

4. $4,800 \div 10 =$

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?

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

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

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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.

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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.

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