Mental Math: Division Patterns

You can find how many fives are in 2,000 by following these steps.

- Rewrite each problem as a multiplication fact.
- Circle all the numbers in the basic fact to see how many zeros to write in the quotient.
- Write the quotient. If there is a zero in the basic fact, the quotient has one fewer zero than the dividend. Otherwise the quotient has the same number of zeros as the dividend.

 $20 \div 5 = 4 \qquad (5) \times (4) = (20)$ $200 \div 5 = 40 \qquad (5) \times (4)0 = (20)0$ $2,000 \div 5 = ? \qquad (5) \times (4)00 = (20)00$ So, 2,000 ÷ 5 = 400.

Use a basic division fact and patterns to find each quotient.

1. 45 ÷ 9 = 2	. 21 ÷ 3 =	3. 81 ÷ 9 =
450 ÷ 9 =	210 ÷ 3 =	810 ÷ 9 =
4,500 ÷ 9 =	2,100 ÷ 3 =	8,100 ÷ 9 =
4. $36 \div 6 = $ 5	. 72 ÷ 8 =	6. 12 ÷ 4 =
360 ÷ 6 =	720 ÷ 8 =	120 ÷ 4 =
3,600 ÷ 6 =	7,200 ÷ 8 =	1,200 ÷ 4 =
Divide mentally. Write the basic division fact and the quotient.		
7. 480 ÷ 6 = 8	. 1,500 ÷ 3 =	9. $36,000 \div 6 =$
Basic Fact:	Basic Fact:	Basic Fact:

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Use a basic division fact and patterns to find each quotient.

1. $45 \div 9 = 5$	2. $21 \div 3 = $ 7	3. 81 ÷ 9 = 9
$450 \div 9 = 50$	210 ÷ 3 = 70	810 ÷ 9 = 90
4,500 ÷ 9 = _500	2,100 ÷ 3 = 700	8,100 ÷ 9 = _900
4. $36 \div 6 = 6$	5. 72 ÷ 8 =9	6. $12 \div 4 = 3$
$360 \div 6 = 60$	720 ÷ 8 = 90	120 ÷ 4 =30

Divide mentally. Write the basic division fact and the quotient.



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