

MENTAL DIVISION STRATEGIES

Fourth Grade Reference Guide

1. Use Fact Families

Think: "What times the divisor equals the dividend?"

Problem	Think Multiplication
$36 \div 4 = ?$	$4 \times 9 = 36$
$56 \div 8 = ?$	$8 \times 7 = 56$

2. Dividing by Tens

Remove the zero, divide, then put the zero back.

Problem	The Shortcut
$120 \div 3$	$12 \div 3 = 4 \hat{+} 40$
$450 \div 9$	$45 \div 9 = 5 \hat{+} 50$

3. Partitioning (Break Apart)

Break the number into easy "friendly" pieces.

Example: $72 \div 3$

$$60 \div 3 = 20$$

$$12 \div 3 = 4$$

$$20 + 4 = 24$$

4. Halving (Divide by 2)

To divide by 4, halve the number twice.

Divide by 4**Process**

$84 \div 4$

Half is 42 $\hat{=}$ Half is 21

$160 \div 4$

Half is 80 $\hat{=}$ Half is 40**Quick Check Table**

$10 \div 2 = 5$

$20 \div 4 = 5$

$30 \div 5 = 6$

$40 \div 8 = 5$

$60 \div 6 = 10$

$81 \div 9 = 9$

$100 \div 4 = 25$

$144 \div 12 = 12$