

Division Tricks & Shortcuts

12 simple strategies to make division quicker, clearer and more confident.

Trick 1: Divide by 2 - Halve It

Dividing by 2 means finding half of the number.

Example: $86 / 2 = 43$

Trick 2: Divide by 4 - Halve Twice

Divide by 2, then divide by 2 again.

Example: $96 / 4$: $96 / 2 = 48$, then $48 / 2 = 24$

Trick 3: Divide by 5

Multiply the number by 2, then divide by 10.

Example: $135 / 5$: $135 \times 2 = 270$, then $270 / 10 = 27$

Trick 4: Divide by 10, 100 and 1000

For whole numbers ending in zeros, remove 1, 2 or 3 zeros. With decimals, move the decimal point left by 1, 2 or 3 places.

Examples: $450 / 10 = 45$; $3,600 / 100 = 36$; $8,000 / 1000 = 8$

Trick 5: Divide by 8 - Halve Three Times

Because $8 = 2 \times 2 \times 2$, divide by 2 three times.

Example: $144 / 8$: $144 \rightarrow 72 \rightarrow 36 \rightarrow 18$

Trick 6: Divide by 25

Multiply by 4, then divide by 100.

Example: $700 / 25$: $700 \times 4 = 2,800$; $2,800 / 100 = 28$

Trick 7: Divide by 50

Multiply by 2, then divide by 100.

Example: $1,250 / 50$: $1,250 \times 2 = 2,500$; $2,500 / 100 = 25$

Trick 8: Use Multiplication Facts

Think of division as the opposite of multiplication. Ask which number multiplied by the divisor gives the dividend.

Example: $72 / 9 = 8$ because $9 \times 8 = 72$

Trick 9: Break the Number Apart

Split a large number into friendly parts, divide each part, then add the answers.

Example: $156 / 6 = (120 / 6) + (36 / 6) = 20 + 6 = 26$

Trick 10: Use Known Multiples

Use multiplication tables to quickly identify quotients for exact division.

Example: $117 / 9 = 13$ because $9 \times 13 = 117$

Trick 11: Estimate First

Round to a nearby friendly number to estimate the quotient. Then calculate exactly and check whether the answer is reasonable.

Example: $398 / 8$ is close to $400 / 8 = 50$, so the exact answer should be close to 50.

Trick 12: Check with Multiplication

Multiply the quotient by the divisor. For exact division, you should get the original dividend.

Example: $168 / 7 = 24$. Check: $24 \times 7 = 168$

Try It Yourself!

Use the tricks above. Try to solve mentally before writing the working.

1. $94 \div 2 =$ _____

2. $168 \div 4 =$ _____

3. $245 \div 5 =$ _____

4. $7,200 \div 100 =$ _____

5. $216 \div 8 =$ _____

6. $900 \div 25 =$ _____

7. $1,750 \div 50 =$ _____

8. $144 \div 12 =$ _____

9. $174 \div 6 =$ _____

10. $126 \div 9 =$ _____

Answer Key

1. 47 | 2. 42 | 3. 49 | 4. 72 | 5. 27 | 6. 36 | 7. 35 | 8. 12 | 9. 29 | 10. 14