

Number Tricks & Shortcuts

12 clever number strategies to help children spot patterns, check calculations and work more confidently.

Trick 1: Divisibility by 2

A number is divisible by 2 if its last digit is even: 0, 2, 4, 6 or 8.

Example: 348 is divisible by 2.

Trick 2: Divisibility by 5

A number is divisible by 5 if it ends in 0 or 5.

Example: 1,235 is divisible by 5.

Trick 3: Divisibility by 10

A number is divisible by 10 if it ends in 0.

Example: 4,720 is divisible by 10.

Trick 4: Divisibility by 3

Add the digits. If the digit sum is divisible by 3, the original number is too.

Example: $372 \rightarrow 3 + 7 + 2 = 12$, so 372 is divisible by 3.

Trick 5: Divisibility by 9

Add the digits. If the digit sum is divisible by 9, the original number is too.

Example: $729 \rightarrow 7 + 2 + 9 = 18$, so 729 is divisible by 9.

Trick 6: Square Numbers Ending in 5

For a two-digit number ending in 5, multiply the number before 5 by the next whole number and attach 25.

Example: $35^2 \rightarrow 3 \times 4 = 12 \rightarrow 1,225$.

Trick 7: Square Numbers Ending in 0

Square the non-zero part and add the correct number of zeros.

Example: $40^2 = 4^2$ followed by two zeros = 1,600.

Trick 8: Even and Odd Numbers

Even + even = even; odd + odd = even; even + odd = odd.

Example: $24 + 18 = 42$ (even); $15 + 9 = 24$ (even).

Trick 9: Digital Sum

Keep adding the digits until one digit remains. This gives a quick check for many calculations.

Example: $4,728 \rightarrow 4 + 7 + 2 + 8 = 21 \rightarrow 2 + 1 = 3$.

Trick 10: Consecutive Numbers

The sum of consecutive numbers can often be found by pairing numbers from the ends.

Example: $1 + 2 + 3 + 4 + 5 = 15$.

Trick 11: Numbers Close to 100

Use 100 as a friendly reference and adjust.

Example: $98 + 37 = 100 + 37 - 2 = 135$.

Trick 12: Estimate with Compatible Numbers

Round numbers to nearby friendly values to estimate quickly and check whether an answer is reasonable.

Example: 49×21 is close to $50 \times 20 = 1,000$.

Try It Yourself!

Try to solve these mentally before writing the working.

1. Is 4,728 divisible by 3? _____

2. Is 5,235 divisible by 5? _____

3. Is 729 divisible by 9? _____

4. $35^2 =$ _____

5. $60^2 =$ _____

6. $48 + 37 =$ _____

7. $98 + 46 =$ _____

8. 49×21 is approximately _____

9. Is 246 even or odd? _____

10. What is the digital sum of 5,832? _____

Answer Key

1. Yes | 2. Yes | 3. Yes | 4. 1,225 | 5. 3,600
6. 85 | 7. 144 | 8. About 1,000 | 9. Even | 10. 9