

Mastering Long Division with Max the Monkey

Learning objective: To develop fluency and precision in dividing four-digit numbers by two-digit numbers using the formal long division method.

Use these flashcards to test your knowledge of division terminology and your ability to solve complex calculations. Remember Max the Monkey's golden rule: 'Divide, Multiply, Subtract, Bring Down, and Repeat!'

What is the 'Dividend' in a division calculation?

The dividend is the number that is being divided or shared into smaller equal groups.

What is the 'Divisor'?

The divisor is the number by which another number is being divided.

If you divide 1,200 by 10, what is the 'Quotient'?

120.

What do we call the amount left over when a number cannot be divided exactly?

The Remainder.

Calculate: $450 \div 15$.

30.

Calculate: $1,848 \div 12$.

154.

Explain why it is helpful to list multiples of the divisor before starting a long division problem.

Listing multiples helps you estimate how many times the divisor fits into the dividend, making the calculation process faster and more accurate.

Compare and contrast: How is short division different from long division?

Short division is used for single-digit divisors where remainders are carried mentally, while long division is used for larger divisors where each step of the calculation is written out explicitly.

If Max the Monkey has £2,400 to share equally among 20 friends, how much does each friend receive?

£120.

Justify your answer: Is $4,560 \div 20$ the same as $456 \div 2$? Explain why.

Yes, both calculations result in 228. This is because both the dividend and the divisor have been divided by 10 (an equivalent ratio).

What might happen if you forget to 'bring down' the next digit in a long division problem?

You would fail to complete the calculation, resulting in an incorrect quotient because the remaining part of the dividend would be ignored.

If you have a remainder of 4 when dividing by 8, how would you write this as a fraction?

$\frac{4}{8}$, which simplifies to $\frac{1}{2}$.