

Max's Mastering Addition Challenge

Learning objective: To develop fluency and reasoning skills in adding whole numbers with more than four digits and decimals with up to three decimal places.

Use these flashcards to test your mental maths agility and formal written methods. Max the monkey believes that every number has a story to tell—can you solve his puzzles?

What is the sum of 45,672 and 38,949?

84,621

Explain why it is essential to align the decimal points when adding 12.5 and 3.472.

To ensure digits of the same place value are added together correctly.

Max has £150.50. He buys a book for £12.99 and a telescope for £85.50. How much has he spent in total?

£98.49

If you add 5,000 to 99,999, what is the result?

104,999

Define 'regrouping' in the context of column addition.

Moving ten units from a lower place value column into the next column to the left (carrying over).

Estimate the sum of 4,892 and 3,105 by rounding to the nearest thousand.

$5,000 + 3,000 = 8,000$

Compare and contrast adding two 4-digit numbers with adding two numbers with three decimal places.

Both require aligning place value columns; however, decimal addition requires keeping the decimal point fixed in the same column position.

What is the inverse operation of addition and how can it be used to check your answer?

Subtraction; subtracting one addend from the sum should result in the other addend.

Justify why $20,000 + 30,000$ is the same as $200 \text{ hundreds} + 300 \text{ hundreds}$.

Both equate to 50,000 because $200 + 300 = 500$, and 500 hundreds equal 50,000.

Calculate the total of 0.75, 1.2, and 0.005.

1.955

What might happen if you forget to include a placeholder zero when adding 4.5 and 0.125?

You might incorrectly align the digits, leading to an error in place value calculation (e.g., adding tenths to thousandths).

If the sum of two numbers is 1,000,000 and one number is 450,000, what is the other number?

550,000