

Max the Monkey's Mathematical Factors and Multiples Challenge

Learning objective: To identify, describe and represent factors and multiples of numbers, including finding all factor pairs of a number and common factors of two numbers.

Use these flashcards to test your knowledge of factors and multiples. Max the Monkey has provided these questions to help you master your times tables and number properties. Try to answer without using a calculator!

What is a factor?

A factor is a whole number that divides into another number exactly, leaving no remainder.

What is a multiple?

A multiple is the result of multiplying a number by an integer (e.g., 12 is a multiple of 3 because $3 \times 4 = 12$).

List all the factor pairs of 12.

1 and 12, 2 and 6, 3 and 4.

Is 7 a factor of 49? Explain how you know.

Yes, because 7 multiplied by 7 equals 49, and 49 divided by 7 equals 7 with no remainder.

List the first five multiples of 8.

8, 16, 24, 32, 40.

What are the common factors of 10 and 15?

1 and 5.

Explain why 13 is a prime number.

A prime number has exactly two factors: 1 and itself. 13 cannot be divided by any other whole number exactly.

True or False: All multiples of 5 end in either 0 or 5.

True.

Find the highest common factor (HCF) of 16 and 24.

8.

If Max the Monkey has 24 bananas, name two different ways he could group them into equal piles.

Possible answers include: 2 piles of 12, 3 piles of 8, 4 piles of 6, or 6 piles of 4.

Is 1 a factor of every whole number?

Yes, because every whole number can be divided by 1.

What is the difference between a factor and a multiple?

Factors are the numbers you multiply together to get a product; multiples are the products themselves when a number is multiplied by an integer.