Mastering Factors and Multiples with Max the Monkey

Learning objective: To identify, recall and understand factors and multiples, including finding factor pairs and common multiples up to 12x12.

Use these flashcards to test your knowledge of number properties. Work with a partner to explain your reasoning for each answer.

What is a factor?

A factor is a number that divides into another number exactly, without leaving a remainder.

List all the factor pairs of 12.

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

Define a multiple.

A multiple is the result of multiplying a number by an integer (e.g., 10, 20, and 30 are multiples of 10).

Max the Monkey has 24 bananas. Can he share them equally into 5 groups without any left over? Why?

No. 24 is not a multiple of 5 (or 5 is not a factor of 24), so there would be a remainder.

What is the first common multiple of 3 and 4?

12.

Is 7 a factor of 49? Justify your answer.

Yes, because 7 multiplied by 7 equals 49, meaning 49 is divisible by 7 with no remainder.

Identify the factors of 9.

1, 3, and 9.

Explain why 15 is a multiple of 5.

Because 5 multiplied by 3 equals 15.

What are the first four multiples of 8?

8, 16, 24, 32.

Find the missing factor: 6 x ? = 42.

7.

If a store sells items for £4 each, is £22 a possible total cost? Explain your reasoning.

No. 22 is not a multiple of 4, so you cannot reach exactly £22 by buying items at £4 each.

Compare and contrast factors and multiples.

Factors are numbers that divide into a larger number (they are usually smaller). Multiples are the products of a number multiplied by an integer (they are usually larger).