

Max's Prime Number Challenge

Learning objective: To identify, describe, and understand prime numbers up to 100, and recognise that a prime number has exactly two factors: 1 and itself.

Use these flashcards to test your knowledge of prime numbers. Max the monkey has gathered these maths puzzles to help you master the properties of numbers.

What is the definition of a prime number?

A prime number is a whole number greater than 1 that has only two factors: 1 and itself.

Is the number 1 a prime number? Explain why.

No, 1 is not a prime number because it only has one factor, whereas prime numbers must have exactly two factors.

List all the prime numbers between 1 and 10.

2, 3, 5, and 7.

Identify the only even prime number.

2.

Is 9 a prime number? Justify your answer.

No, 9 is not prime because it has three factors: 1, 3, and 9. It is a composite number.

What are the prime factors of 10?

2 and 5 (because $2 \times 5 = 10$).

Which of these is a prime number: 13, 15, or 21?

13 is the prime number.

True or False: All odd numbers are prime numbers.

False. For example, 9, 15, and 21 are odd but are not prime because they have factors other than 1 and themselves.

Find the prime numbers between 10 and 20.

11, 13, 17, and 19.

Explain why 27 is not a prime number.

27 is not prime because it is divisible by 1, 3, 9, and 27.

What might happen if you tried to divide a prime number by a number other than 1 or itself?

You would get a remainder, or the answer would be a fraction or decimal, not a whole number.

Compare and contrast prime numbers and composite numbers.

Prime numbers have exactly two factors, while composite numbers have more than two factors.