AQA Computer Science GCSE

3.2.3 Arithmetic Operations

Flashcards

What are arithmetic operations in programming?

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Basic mathematical calculations used to manipulate and process numerical data.

What symbol is used for addition?

What symbol is used for addition?

+

Example: 5 + 3 = 8

What symbol is used for subtraction?

What symbol is used for subtraction?

-

Example: 10 - 4 = 6

What symbol is used for multiplication?

What symbol is used for multiplication?

*

Example: 4 * 3 = 12

What symbol is used for real division?

What symbol is used for real division?

/

Example: 9 / 2 = 4.5

What is integer division?

What is integer division?

Division that returns only the whole number part of the result.

Symbol: DIV or //

Example: 11 DIV 2 = 5

What is modulus in programming?

What is modulus in programming?

An operation that returns the remainder of a division.

Symbol: MOD or %

Example: 11 MOD 2 = 1

What do DIV and MOD together represent?

What do DIV and MOD together represent?

A full division operation: the whole part and the remainder.

What is the result of 13 DIV 4 and 13 MOD 4?

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13 DIV 4 = 3 and 13 MOD 4 = 1

Why are DIV and MOD useful in programming?

Why are DIV and MOD useful in programming?

They are useful for working with loops, positioning, and splitting data.

Why is MOD useful in identifying even and odd numbers?

Why is MOD useful in identifying even and odd numbers?

An odd number modulus 2 has a remainder of 1, whilst an even number modulus 2 has no remainder.

E.g. 11 MOD 2 = 1, 12 MOD 2 = 0