

AQA Computer Science GCSE

3.3.5 Character Encoding

Flashcards

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What is character encoding?



What is character encoding?

The process of converting characters into binary so they can be stored and processed by a computer's hardware.



Why is character encoding necessary?



Why is character encoding necessary?

Because computers can only store and process binary data.



What is a character set?



What is a character set?

A collection of characters and their corresponding binary values.



What does ASCII stand for?



What does ASCII stand for?

American Standard Code for Information Interchange



How many bits does
standard ASCII use per
character?



How many bits does standard ASCII use per character?

7 bits per character



How many unique characters can ASCII represent?



How many unique characters can ASCII represent?

128 characters



What types of characters are in ASCII?



What types of characters are in ASCII?

English letters, numbers, punctuation,
and control codes



ASCII 'A' is coded as 65.
Using this, determine what
ASCII 'E' is coded as.



ASCII 'A' is coded as 65. Using this, determine what ASCII 'E' is coded as.

A = 65

B = 66

C = 67

D = 68

E = 69



What is Unicode?



What is Unicode?

A modern character set that supports characters from many languages and symbols.



How is Unicode different from ASCII?



How is Unicode different from ASCII?

Unicode supports more characters using more bits (up to 32 per character), while ASCII is limited to 128 characters.



Which encoding standard is
more suitable for global
applications?



Which encoding standard is more suitable for global applications?

Unicode



Does Unicode include ASCII characters?



Does Unicode include ASCII characters?

Yes - ASCII is the first 128 characters of Unicode.

