

OCR Computer Science A Level

1.4.1 Data Types

Flashcards



What data type should be used for
storing a phone number like
07886756443?



What data type should be used for storing a phone number like 07886756443?

String

Numeric types would omit the leading 0.



Perform an AND mask on the binary numbers:

10101101

01011011



Perform an AND mask on the binary numbers

00001001



Which data type stores a collection of characters?



Which data type stores a collection of characters?

String



Add the two binary numbers:

01011011

00111010

Give your answer in decimal



Add the two binary numbers 01011011 and 00111010, giving your answer in decimal

149

$$\begin{array}{r} 01011011 \\ + 00111010 \\ \hline 10010101 \end{array}$$



What is the decimal 45 in binary?

Give your answer as a byte



What is the decimal 45 in binary?

00101101



What is the hexadecimal 2E in decimal?



What is the hexadecimal 2E in decimal?

$$(2 \times 16) + (14 \times 1) = 46$$



What is the hexadecimal 45 in binary?

Give your answer as a byte



What is the hexadecimal 45 in binary?

01000101



Which data type stores
just True and False?



Which data type stores just True and False?

Boolean



What is -5 in sign magnitude binary?

Give your answer as a nybble



What is -5 in sign magnitude binary?

1101



What does the binary 01101100
represent in hexadecimal?



What does the binary 01101100 represent in hexadecimal?

6C



What is the effect of a logical shift left by one place?



What is the effect of a logical shift left by one place?

The value is doubled



What is the two's complement binary
10101101 in decimal?



What is the two's complement binary 10101101 in decimal?

-83



The binary 0011010000110 is a floating point number with a single-bit sign, 8-bit mantissa and 4-bit exponent.

What is the number in decimal?



What is the number in decimal?

52



Perform a logical shift right by two places on the binary number 01101010 and convert your result to decimal.



Perform a logical shift right by two places on the binary number 01101010 and convert your result to decimal.

26.5



Perform an XOR mask on the binary numbers:

01010101

10111011



Perform an XOR mask on the binary numbers

11101110



Which of the following is not a character?

A: 8

C: %

B: R

D: 43



Which is not a character?

D



The binary 110011000011 is a floating point number with a single-bit sign, 8-bit mantissa and 4-bit exponent.

What is the number in decimal?



What is the number in decimal?

-9.5

