

Number conversions

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Task 1

Last two digits of my album number as a decimal fraction and converted then to binary.

Last two digits: 76

In binary:

$$76_{10} = 1001100_2$$

Task 2

Last three digits of my album number in binary format and converted then to hexadecimal.

Last three digits: 576

In binary:

$$576_{10} = 1001000000_2$$

In hexadecimal:

$$576_{10} = 240_{16}$$

Task 3

Second and third digits of my album number as a decimal fraction and converted then to hexadecimal.

Second and third digits: 25

In hexadecimal:

$$25_{10} = 19_{16}$$

Task 4

First and last digits of my album number in hexadecimal format and converted then to binary.

First and last digits: 72

In hexadecimal:

$$72_{10} = 48_{16}$$

In binary:

$$48_{16} = 01001000_2$$

Task 5

Third and fourth digits of my album number in hexadecimal format and then converted to decimal, passing through the binary system.

Third and fourth digits: 57

In binary:

$$57_{16} = 1010111_2$$

In decimal:

$$1010111_2 = 87_{10}$$

Task 6

Using Horner's method, the result as a decimal number for the following cases:
If the third digit of my album number equals:

1. 5: Convert 413214_5 to decimal

$$413214_5 = 13559_{10}$$