PROGRAMMING CHALLENGE 6: HEX & DENARY

Numbers in Computing are often represented in hexadecimal form.

A program is required to convert a hexadecimal number into a denary number and vice versa.

Task 1

Write program code with the following specification:

- Input a hexadecimal number as a string
- Validate the input
- Calculate the denary value of each hexadecimal digit (write this code as a function)
- Calculate the denary value of the hexadecimal number input
- Output the denary value

Evidence 1

Your program code. **[10]**

Task 2

Draw up a list of **three** suitable test cases. Complete a table with the following headings:

Hexadecimal number	Purpose of the test	Expected output

Provide screenshot evidence for your testing.

Evidence 2

The completed table.
Screenshots for each test data run. **[5]**

Task 3

Write additional code to convert a denary number into a hexadecimal number.

Evidence 3

Your program code. **[10]**

Task 4

Draw up a list of **three** suitable test cases. Complete a table with the following headings:

Denary number	Purpose of the test	Expected output

Provide screenshot evidence for your testing.

Evidence 4

The completed table.
Screenshots for each test data run. **[5]**