In-Class Practice

Data Types

CHARACTER REPRESENTATION

What are the decimal and hexadecimal ASCII encodings for the following characters

```
'0'  = Decimal: 0 Hexadecimal: 00

'a'  = Decimal: 97 Hexadecimal: 61

'A'  = Decimal: 65 Hexadecimal: 41
```

What are the decimal and hexadecimal EBCDIC encodings for the following characters

```
'0'  = Decimal: 0 Hexadecimal: 00

'a'  = Decimal: 129 Hexadecimal: 81

'A'  = Decimal: 193 Hexadecimal: C1
```

Convert the following binary values to ASCII characters:

```
0110 1101 = m

0100 1101 = M
```

Convert the following decimal values to EBCDIC characters:

```
199 = G

135 = g
```

DECLARATIONS

Which of the following is not a valid identifier?(Black aren't valid)

```
whale   giraffe's   camel_back   4me2   _how_do_you_do

senecac.on.ca digt3 register
```

Select a descriptive identifier for the variable that holds the following information and write a complete declaration for that variable:

```
Books on loan              _____________________________________

Cash in a cash register    _____________________________________

A student number           _____________________________________

Humidity                   _____________________________________
```

TWO'S COMPLEMENT

Assume a 2-byte word. What is the two's complement binary value for

-63 _____

-27 _____

Assume a 2-byte word. Convert the following binary values to decimal:

1111 1111 1111 0101 _____

1111 1111 1011 1011 _____