

Name: \_\_\_\_\_

Value: 2

Complete the following table concerning the smallest and largest integers that can be represented in an 8-bit configuration assuming a sign magnitude storage mode.

Decimal (Base 10)		Binary (Base 2)	
Smallest	Largest	Smallest	Largest

Complete the following table concerning the smallest and largest integers that can be represented in a 4-bit configuration assuming a sign magnitude storage mode.

Decimal (Base 10)		Binary (Base 2)	
Smallest	Largest	Smallest	Largest

Complete the following table concerning the smallest and largest integers that can be represented in a 5-bit configuration assuming a sign magnitude storage mode.

Decimal (Base 10)		Binary (Base 2)	
Smallest	Largest	Smallest	Largest

For each of the decimal numbers in the table below, provide the internal representation of each. Assume a word size of 8 bits and a sign magnitude storage mode.

Decimal Number	Internal Representation	Decimal Number	Internal Representation
0		-0	
125		-125	
82		-82	
1		-1	
127		-127	
255		-255	

For each of the internal forms shown in the table below, provide the decimal (base 10) equivalent. Assume a word size of 8 bits and a sign magnitude storage mode.

Internal Representation	Decimal Number	Internal Representation	Decimal Number
0101 1001		1010 0110	
1111 1111		1000 0000	
0111 1111		0000 0000	
1010 1010		0101 0101	
0011 1100		1100 0011	