



Name:

Date:

Section:

Grade:

### 3.0 Integer Representation

3.1 Instruction: Complete the table below using 8-bit signed integer representation. Write **×** if the number cannot be represented in the specified format.

Decimal	Sign and Magnitude	1's Complement	2's Complement
<b>47</b>			
<b>-103</b>			
<b>127</b>			
<b>0</b>			
<b>-128</b>			
<b>128</b>			
	<b>1000 0000</b>		
		<b>0110 0110</b>	
			<b>1010 0101</b>

3.2 Instruction: Complete the table below using Two's Complement 8-bit and 16-bit signed integer representation.

Decimal	8-bit 2's Complement	16-bit 2's Complement
<b>58</b>		
<b>-100</b>		
<b>-15</b>		
	<b>0101 1010</b>	
	<b>1100 0011</b>	
		<b>0000 0000 0111 1110</b>
		<b>1111 1111 1000 0001</b>