

Binary Arithmetic

12 September 2017 08:59

Task 1 - Converting between Binary and Decimal(Denary)

2^7	2^6	2^5	2^4	2^3	2^2	2^1	2^0	
								Decimal
0	1	0	0	1	1	0	1	
0	0	0	1	1	0	1	0	
0	1	0	1	1	0	0	1	
								9
								33
								102

What is the maximum integer that can be represented in 1 byte?

Task 2 - Binary Addition

Rules

0+0	
0+1	
1+1	
1+1+	

Add the following:

								Decimal
0	1	0	0	1	1	0	1	
0	0	1	0	1	0	0	0	

								Decimal
0	1	1	0	1	1	1	1	
0	1	0	0	1	0	1	0	

								Decimal
0	1	1	0	1	1	0	1	
0	1	1	0	1	1	1	1	

Ext Question

Consider the addition of 11111111 and 00000001. What do you think would happen if this calculation was to be performed using only 8 bit registers?