

Fixed Point Binary

Complete the following table, made up of 4 bit integer parts and 4 bit fractional parts:

Denary	Binary
12.75	
	1010 1010
9.3125	
	0010 0111

Complete the following table:

8-bit binary	Hexadecimal	Denary
0000 1010		
0000 1110		
		15
	4E	
1110 0100		
		167
	9F	
		255
	DC	

Complete the following table:

Denary	Positive Binary Representation	Negative Binary Representation
-47		
	0100 0101	
		11000011
		1111 0000

Simple Binary Arithmetic

Convert the following numbers to 8-bit signed integers and solve the equation.
Show your working and convert the numbers back into denary to check.

1. $15 + 27$

2. $107 + 6$

3. $14 + 92$

Simple Binary Arithmetic

Convert the following numbers to 8-bit signed integers and solve the equation.
Show your working and convert the number back into denary to check.

1. $27 - 15$

2. $107 - 6$

3. $14 - 92$

Binary Multiplication 1

Multiply the following binary numbers.
Convert all of the numbers to denary to check:

1. 0011
 0010 x

2. 0010 1011
 0000 0110 x

3. 0001 0101
 0000 1010 x