Number Conversion

Fill in the table below

Binary	Octal	Decimal	Hexadecimal
1001101111000			
	2017		
		1919	
			0xDEAD
	567		

Binary Operations

1) Given 8-bits wide A and B with hexadecimal expression 0x5A and 0x9C respectively. Calculate the values of the following expressions

a) A & B

b) A && B

c) A | B

d) A || B

e) ~A ^ ~B

f) (A || B) ^(A &B)

2) Fill in the table below with the results of shift operation given below (Assume X is 8-bit wide) . Please answer in hexadecimal.

X	X << 2	X>>3(Logical)	X>>3(Arithmetic)
0x4C			
0xEA			

3) Design a C expression, which generates a word (32-bit) consisting of the lower 24 bits of x and the remaining 8 bits of y.

For example, x = 0x89ABCDEF and y = 0x76543210, it will generate 0x76ABCDEF