

1) a) 34

Division by 2	Quotient	Remainder	Bit
$34/2$	17	0	0
$17/2$	8	1	1
$8/2$	4	0	2
$4/2$	2	0	3
$2/2$	1	0	4
$1/2$	0	1	5

34 decimal = 100010 Binary

b) 123

Division by 2	Quotient	Remainder	Bit
$123/2$	61	1	0
$61/2$	30	1	1
$30/2$	15	0	2
$15/2$	7	1	3
$7/2$	3	1	4
$3/2$	1	1	5
$1/2$	0	1	6

123 decimal = 1111011 Binary.