

	16	8	4	2	1		32	16	8	4	2	1
0						32						
1						33						
2						34						
3						35						
4						36						
5						37						
6						38						
7						39						
8						40						
9						41						
10						42						
11						43						
12						44						
13						45						
14						46						
15						47						
16						48						
17						49						
18						50						
19	1	0	0	1	1	51						
20						52						
21						53						
22						54						
23						55						
24						56						
25						57						
26						58						
27						59						
28						60						
29						61						
30						62						
31						63						

1. Find the value of each of the binary expressions
 - (a) 1010101_2
 - (b) 1101101_2
 - (c) 11.01101_2
2. Find the binary representation of
 - (a) 1995 using both the remainder method and the subtraction method.
 - (b) 1996 using both the remainder method and the subtraction method.
 - (c) $\frac{1}{4}$. What method is available here? Can you modify the remainder method to convert $\frac{1}{4}$ to binary?
3. Perform the indicated arithmetic
 - (a) $1101_2 \times 10111_2$
 - (b) $1001_2 \times .1_2$
 - (c) $10000_2 \times 1.00101_2$
 - (d) $1101_2 + 10111_2$
 - (e) $1001_2 + 1011.1_2$
 - (f) $1011100_2 - 100101_2$