

①

Problem 100 dec  $\rightarrow$  Bin

128	64	32	16	8	4	2	1
-----	----	----	----	---	---	---	---

0	1	1	0	0	1	0	0
---	---	---	---	---	---	---	---

100
64
<hr/>
36
32
<hr/>
4
4
<hr/>
0

problem ~~230~~ 230 dec  $\rightarrow$  Bin

128	64	32	16	8	4	2	1
-----	----	----	----	---	---	---	---

1	1	1	0	0	1	1	0
---	---	---	---	---	---	---	---

230
128
<hr/>
102
64
<hr/>
38
32
<hr/>
6
4
<hr/>
2
2
<hr/>

check

2
128
64
<hr/>
32
4

2
<hr/>
230

2

$2^8$   $2^4$   $2^2$  16 8 4 2 1

problem

10101011

bin to dec

2

128

32

8

2

1

-----  
1011

7

$2^8$   $2^4$  32 16 8 4 2 1

problem

01101010

bin to dec

64

32

8

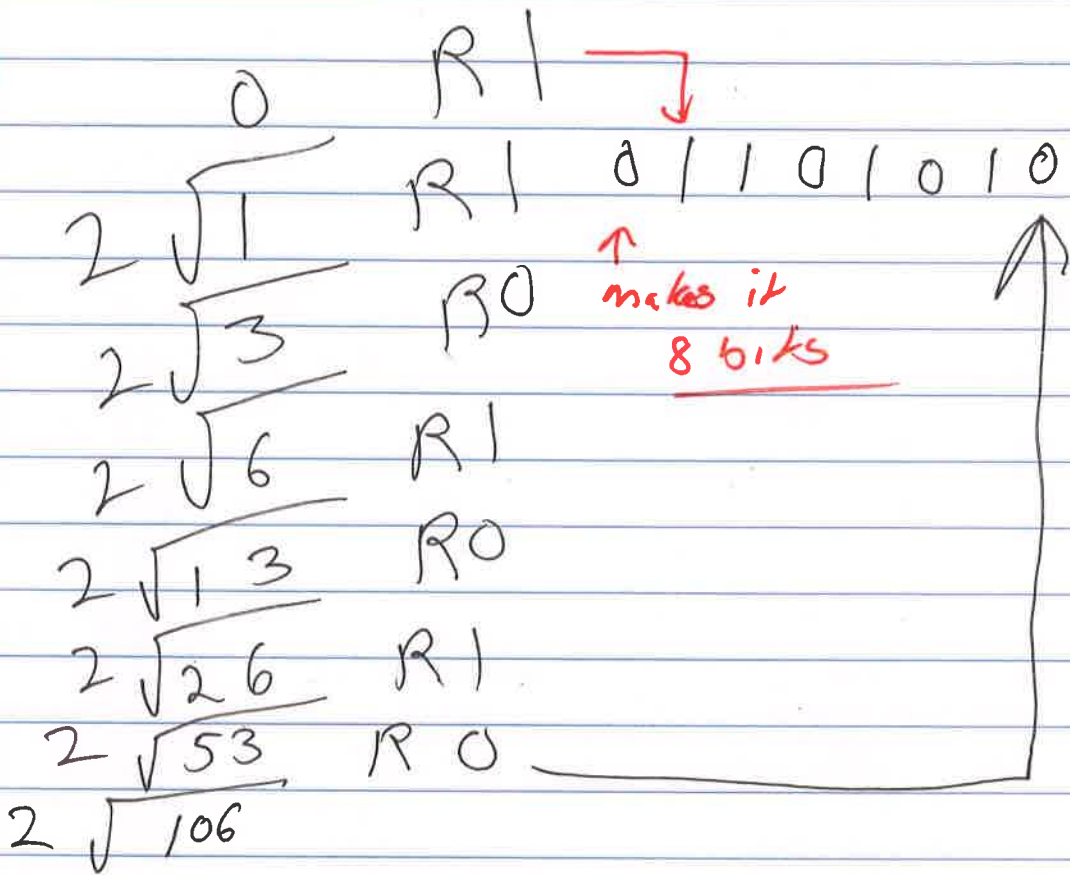
2

-----  
106

3

problem 106

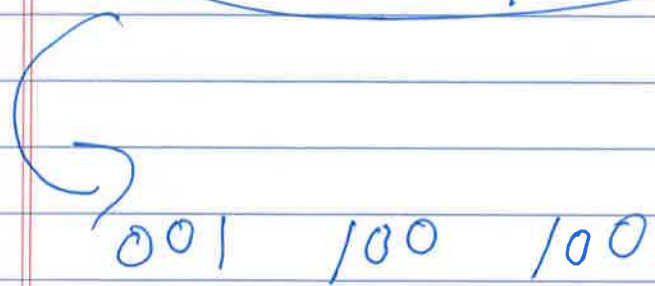
to dec using  
division method



problem 100 dec to oct

	128	64	32	16	8	4	2	1
100 → Bin	0	0	1	1	0	0	1	0
	4	2	1	4	2	1	4	2
	1			4			4	

oct



problem 360 oct → Bin → dec

	4	2	1	4	2	1	4	2	1
bin	0	1	1	1	1	0	0	0	0
	128	64		32	16	8		4	2

2  
128  
64  
32  
16

---

dec 240 dec

5

problem 100 dec  $\rightarrow$  bin  $\rightarrow$  Hex

100  $\rightarrow$  bin ~~0~~ 01100100  
8421 | 8421  
6 | 4 h

bin problem  
↓  
Hex

1101	1110
8421	8421
D	E h ←

0xDE ← intel

\$DE Motorola

DEh ← prog

6

problem

C 5 ← hex to Dec

	bin	
A 10	<del>1010</del> 1010	128 64 32 16 8 4 2 1
B 11	<del>1011</del> 1011	1100 0101
C 12	<del>1100</del> 1100	
D 13	<del>1101</del> 1101	
E 14	<del>1110</del> 1110	
F 15	1111	

128  
64  
4  
1

197 dec

problem

978 to Binary Coded dec (BCD)

9 | 7 | 8

dec to BCD

BCD

8421	8421	8421
1001	0111	1000