

PRACTICAL 2

Part A			Count	Rem	Rem tot	Bin	Rem tot
1.	2^9	512	0	366	0	00000000	00000000
	2^8	256	1	110	256	10000000	10000000
	2^7	128	0	110	256	00000000	10000000
	2^6	64	1	46	320	00100000	10010000
	2^5	32	1	14	352	00010000	10110000
	2^4	16	0	14	352	00010000	10110000
	2^3	8	1	6	360	00001000	10110100
	2^2	4	1	2	364	00000100	10110110
	2^1	2	1	0	366	00000010	10110110
	2^0	1	0	0	366	00000000	10110110

$366_{10} \rightarrow \text{Bin}_2 \rightarrow 0101101110$

2.			Count	Rem	Rem tot	Bin	Rem tot
	2^{16}	65,536	0	45,000	0	00000000000000	00000000000000
	2^{15}	32,768	1	12,232	32,768	10000000000000	10000000000000
	2^{14}	16,384	0	12,232	32,768	0....	100.....
	2^{13}	8,192	1	4,040	40,960	00100000000000	10100000000000
	2^{12}	4,096	0	4,040	40,960	00....	10100....
	2^{11}	2,048	1	1,992	43,008	00001000000000	10101000000000
	2^{10}	1,024	1	968	44,032	000001....	1010110....
	2^9	512	1	456	44,544	0000001....	10101110....
	2^8	256	1	200	44,800	00000001	101011110....
	2^7	128	1	72	44,928	000000001	1010111110....
	2^6	64	1	8	44,992	0000000001	10101111110....
	2^5	32	0	8	44,992	00....	10101111110....
	2^4	16	0	8	44,992	00....	10101111110....
	2^3	8	1	0	45,000	000000000000	10101111110010....

		Count	Rem	Rem tot	Bin	Rem tot
2^2	4	0	0	45,000	000...	1010111110010
2^1	2	0	0	45,000	000...	10101111100100
2^0	1	0	0	45,000	000...	101011111001000

$45,000_{10} \rightarrow \text{Bin}_2 \rightarrow 0101011111001000$