

Author Identification Block

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Course: CMSC 2833 – Computer Organization I
Assignment: a03
Due: September 15, 2020

Scoring block			
Exercise	Maximum	Earned	Explanation
2	1	1	
4	1	1	
10	1	1	
12	1	1	
14	1	1	
16	1	1	
23	1	1	
26	1	1	
27	1	1	
29	1	1	
30	1	1	
32	1	1	
34	1	1	
38	1	1	
39	1	1	
Total	15	15	

1. Perform the following base conversion using subtraction or division remainder:

a) $458_{10} = \underline{\hspace{2cm}}_3$

Solution:

Divisor	Dividend	Quotient	Remainder
3	458	152	2
3	152	50	2
3	50	16	2
3	16	5	1
3	5	1	2
3	1	0	1
3	0	0	0

$458_{10} = 121222_3$

b) $677_{10} = \underline{\hspace{2cm}}_5$

Solution:

Divisor	Dividend	Quotient	Remainder
5	677	135	2
5	135	27	0
5	27	5	2
5	5	1	0
5	1	0	1
5	0	0	0

$677_{10} = 10202_5$

c) $1518_{10} = \underline{\hspace{2cm}}_7$

Solution:

Divisor	Dividend	Quotient	Remainder
7	1518	216	6
7	216	30	6
7	30	4	2
7	4	0	4
7	0	0	0

$1518_{10} = 4266_7$

d) $4401_{10} = \underline{\hspace{2cm}}_9$

Solution:

Divisor	Dividend	Quotient	Remainder
9	4401	489	0
9	489	54	3
9	54	6	0
9	6	0	6
9	0	0	0

$4401_{10} = 6030_9$