

Author Identification Block

Author 1: Mr. Charles Babbage
Student ID 1: *00000001
E-Mail 1: cbabbage@uco.edu
CRN 1: 15437 Autumn 2020
Author 2: Ms. Ada Lovelace
Student ID 2: *00000001
E-Mail 2: alovelace@uco.edu
CRN 2: 13097 Autumn 2020
Course: CMSC 2833 – Computer Organization I
Assignment: a02
Due: September 1, 2020

Scoring block			
Exercise	Maximum	Earned	Explanation
2	1	1	
5	1	1	
8	1	1	
11	1	1	
17	1	1	
20	1	1	
33	1	1	
35	1	1	
37	1	1	
39	1	1	
51	1	1	
58	1	1	
63	1	1	
66	1	1	
78	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

$4401_{10} = 6030_9$