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LAB 12: COMPUTER ARCHITECTURE

SUBMITTED TO: MA'AM AYESHA

TASK 1

Task 1:

START:

INP

OUT

CLA

OUT

HLT

Name	Width	Data			
AC	16	0000	0000	1010	1010
AR	12	0000	0000	0001	

Name	Width	Data			
AC	16	0000	0000	0000	0000
AR	12	0000	0000	0000	0000

TASK 2

START:

INP

OUT

CMA

OUT

HLT

Name	Width	Data
AC	16	0000 0000 1100 1100
AR	12	0000 0000 0001

```
EXECUTING...
Enter Inputs, the first of which must be an Integer: 204
```

Name	Width	Data
AC	16	1111 1111 0011 0011
AR	12	0000 0000 0001

TASK 3

INP

INC

INC

INC

OUT

HLT

```
EXECUTING...
Enter Inputs, the first of which must be an Integer: 1
Output: 4
EXECUTION HALTED NORMALLY due to the setting of the bit(s): [HALT-BIT]
```

TASK 4

INP

SPA

OUT

HLT

```
EXECUTING...
Enter Inputs, the first of which must be an Integer:5
EXECUTION HALTED DUE TO AN EXCEPTION: There are currently no predefined inputs from the user of type long.
```

```
EXECUTING...
Enter Inputs, the first of which must be an Integer: -5
Output:  -8191
EXECUTION HALTED NORMALLY due to the setting of the bit(s): [HALT-BIT]
```

TASK 5

INP

SNA

OUT

HLT

```
EXECUTING...
Enter Inputs, the first of which must be an Integer: -5
Output:  0
EXECUTION HALTED NORMALLY due to the setting of the bit(s): [HALT-BIT]
```

```
EXECUTING...  
Enter Inputs, the first of which must be an Integer: -4  
EXECUTION HALTED NORMALLY due to the setting of the bit(s): [HALT-BIT]
```