

PRACTICE WORKSHEET

1. Input marks of 8 students, pass mark is greater than 20 and the mark is below 10 failed. find how many students are passed and failed

```
count = 0
Passed = 0
Failed = 0
WHILE count < 8 DO
INPUT Mark
IF Mark > 20 THEN
Passed = Passed + 1
ELSE
Failed = Failed + 1
END IF
count = count + 1
END WHILE
PRINT " Passed students are", Passed
PRINT " Failed students are", Failed
```

Complete the trace table of the above pseudocode.
Marks of 8 students are : 45, 12, 56, 9, 30, 50, 15, 18

count	Passed	Failed	Mark	OUTPUT

2. The given pseudocod enter 10 numbers and count the positive numbers. Complete the trace table for the following pseudocode

1 count = 0

2 PositiveNumber = 0

3 WHILE Count < 10 DO

4 INPUT Num

5 IF Num > 0 THEN

6. PositiveNumber = PositiveNumber + 1

7 END IF

8. count = count + 1

9 END WHILE

10 PRINT " Positve numbers are", PositiveNumber

a) Input values are Num: 30,-25,12, -2,-12,400,20,-40,10,-90

count	PositiveNumber	Num	OUTPUT

3.

This pseudocode algorithm inputs two non-zero numbers and a sign, and then performs the calculation shown by the sign. An input of zero for the first number terminates the process.

```
INPUT Number1, Number2, Sign
WHILE Number1 <> 0
  IF Sign = '+' THEN Answer ← Number1 + Number2 ENDIF
  IF Sign = '-' THEN Answer ← Number1 - Number2 ENDIF
  IF Sign = '*' THEN Answer ← Number1 * Number2 ENDIF
  IF Sign = '/' THEN Answer ← Number1 / Number2 ENDIF
  IF Sign <> '/' AND Sign <> '*' AND Sign <> '-' AND Sign <> '+'
    THEN Answer ← 0
  ENDIF
  IF Answer <> 0 THEN OUTPUT Answer ENDIF
  INPUT Number1, Number2, Sign
ENDWHILE
```

(a) Complete the trace table for the input data:
5, 7, +, 6, 2, -, 4, 3, *, 7, 8, ?, 0, 0, /

Number1	Number2	Sign	Answer	OUTPUT

4. Write a pseudocode using while loop to Input marks of 500 students and find

- How many students got A grade?(marks in between 70 and 100)
- How many students got B grade? (marks in between 50and 70)
- How many students got C grade? (marks in between 40 and 50)
- How many students are failed (marks below 40)

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