
Mathematical Philosophy + Numerical / Pattern Recognition Ability Question
(Specially designed for CAT, MBA, Olympiad, PHD students, for checking
Professor's / examiner's reasoning ability, justice for student. )

In the one of the international exam, SAM, JOHN, Abdul, Gautam appears. Many questions were simple but all of them got marks less than the cut-off in all solved questions except following. This exam is most important in their career. Marks to the following question determine their future. All four student given answers (mentioned after question). Suppose you are distinguished professor examiner, paper comes to you for evaluate their answers to following problem. As the examiner what marks you will gives to all of them, as a student attending same exams what will be your answers to next questions.

Question :- IF input is $\mathbf{1 0}, \mathbf{1 0}, \mathbf{1 0}, \mathbf{2 0}, \mathbf{2 0}, \mathbf{2 0}, \mathbf{3 0}, \mathbf{3 0}, \mathbf{3 0}, \mathbf{4 0}, \mathbf{4 0}, \mathbf{4 0}, \mathbf{5 0}, 50$ Then function f 1 operates on it and gives output as

$$
1,2,3,1,2,3, \quad 1,2,3,1,2, \quad 3,1,2
$$ Based on this information, write down answers to next to problems.

Q. 1 ) What is/are output of Function $\mathbf{f 1}$ for input data 30, 30, 30, 60, 60, 60, 180, 90, 60, 20,40,60, 15, 15
Q. 2) What is / are output of function f 1 for input
( 5 Marks) 10, 10, 20, 20, 20, 20, 60, 30, 20, 20, 20

## SAM's Answers

for Q1 -> Output :- 1, 2, 3, 1, 2, 3, 1, 2, 3, 1, 2, 3, 1,2
for Q2 - > Output :- 1, 2, 3, 1, 2, 3, 1, 2, 3, 1, 2
Ronny's Answers
for Q1 - > Output : $30 / 10=3,60 / 10=6,9,60 / 20=3,120 / 20=6,9,180 / 30=6,9,11$,

$$
20 / 40=0.5,60 / 40=1.5,120 / 40=3,15 / 50=0.3,30 / 50=0.6
$$

i.e. 3, 6, 9, 3, 6, 9, 6, 9, 11, 0.5, 1.5, 3 , 0.3, 0.6
for Q2 -- > Output: 1, 2, 4, 1, 2, 3, 2, 3, 110/30 = 11 / 3, 20 / $40=0.5,40 / 40=1$
Abdul's Answer
For Q1 - > Output: 1, 2, 3, 1, 2, 3, 1, 1, 1, 1, 1, 1, 1, 2
For Q2 -> Output : 1, 2, 1, 2, 3, 4, 1, 1, 1, 2, 3
Gautam's answer
For Q1 - > Output: 1, 2, 3, 1, 2, 3, $1,1,4,1,1,5,1,2$
For Q2 - > Output : 1, 2, 1, 2, 3, 4, 1, 1, 1, 2, 3


