

ENTRY & EXIT TIMINGS

The table given below gives the number of people entered and exited Iskon temple at various times on 27th August 2017. Temple opens at 7 am and closes down at 12.45 pm and all Persons leave before 1 pm No person left the hall within 1 hour of entering.

TIME	ENTER	EXIT
$7 \text{ am} \leq x \leq 8 \text{ am}$	183	-
$8 \text{ am} < x \leq 9 \text{ am}$	160	132
$9 \text{ am} < x \leq 10 \text{ am}$	148	117
$10 \text{ am} < x \leq 11 \text{ am}$	120	157
$11 \text{ am} < x \leq 12 \text{ noon}$	97	176
$12 \text{ noon} < x \leq 1 \text{ pm}$	-	-

where x indicate the time in the given interval.

- Q1. The number of people who stayed in the temple for more than 5 hours is at most.
- Q2. The number of people who left the temple within 2 hours of entering is at least.
- Q3. The number of people who entered the temple in the interval 7 am to 8 am and left the temple in the interval 10 am to 11 a.m. is at most.

The visitors can enter or exit the art gallery only once every hour. On Sunday there are 5 in timings in which visitors are allowed to enter inside the gallery 8 AM, 9 AM, 10 AM, 11 AM and 12 Noon. There are 5 out timings in which the visitors are allowed to exit 9AM, 10AM, 11AM, 12 NOON, 1PM There are a total of 1200 visitors at a particular day. The following table shows the number of visitors during in timing and out timing For Eg. 210 people entered inside gallery at 11AM. 420 people exited the gallery at 1 PM.

TIME	ENTER	EXIT
8 am	210	
9 am	240	150
10 am	360	180
11 am	270	180
12 noon	120	270
1 pm		420

- Q1. Out of the visitor who entered or exited the museum at 10AM, find the maximum number of visitors who stayed in museum for not more than 2 hours.
- Q2. Find the maximum number of visitors who stayed in the museum for at least 3 hours.
- Q3. A group of visitors entered the gallery together and left at the same time Find the maximum possible number of the people in this group if the group stayed in gallery for at least 2 hours.
- Q4. Find the maximum number of people who stayed in the museum for exactly 2 hours.

R-city mall in Hyderabad keeps track of the number of customers entering and exiting the mall. The following is the report of one particular day. The mall opens at 10 am and closes at 3.50 pm sharp. Every customer stays at the mall for at least 1 hour.

TIME	ENTER	EXIT
$10 \text{ am} \leq x \leq 11 \text{ am}$	154	-
$11 \text{ am} < x \leq 12 \text{ pm}$	121	101
$12 \text{ pm} < x \leq 1 \text{ pm}$	119	89
$1 \text{ pm} < x \leq 2 \text{ pm}$	91	129
$2 \text{ pm} < x \leq 3 \text{ pm}$	66	148
$3 \text{ pm} < x \leq 4 \text{ pm}$	-	

Q1. The number of people who stayed in the mall for more than 5 hours is at most

Q2. The number of people who left the mall within 2 hours of entering is at least

Q3. The number of people who entered the mall in the interval $10 \text{ am} \leq x \leq 11 \text{ am}$ and left the mall in the interval $1 \text{ pm} < x \leq 2 \text{ pm}$ is at most

Q4. Let 'x' be the minimum number of people who left the mall within 2 hrs of entering, and let 'y' be the number of people who exited in the interval $3 \text{ pm} < x \leq 4 \text{ pm}$. 'y' is what percent (in nearest integer) of 'x'?

- a. 25 b. 28 c. 30 d. 20