1. A hostel building in a school has 4 floors with 12 rooms on each floor. Two students can be allotted one room.
   A) How many students can be allotted to each floor?
   B) How many students can reside in the hostel building?
   C) How many rooms are there in the hostel?
   D) How many students could not get the hostel accommodation, if 109 students applied for hostel accommodation.
   E) If one housekeeper maintains 4 rooms, then how many housekeepers are required for the hostel?

2. A company has 4 printing machines. Each printing machine costs 1,100 $. Each machine prints 180 pages per minute.
   A) How much did the printing machines cost to the company?
   B) How many pages can be printed by the printing machines in 1 hour?
   C) If one machine goes out of order, how many pages will be printed in 1 hour by the remaining machines?
   D) An order of printing is completed in 90 minutes using all the machines. How many pages were printed for the order to be completed?

1. A) 1 room can be allotted to 2 students.
12 rooms (on 1 floor) can be allotted to 2 ×12 = *24 students*
Ans. *Each floor can be allotted to 24 students.*

B) 1 floor can accommodate 24 students.
6 floors can accommodate 24 × 6 = 144 students.
Ans. *The hostel can accommodate 144 students.*

C) 1 floor has 12 rooms.
6 floors will have 12 × 6 = 72 rooms.
Ans. Total number of rooms in the hostel = 72

D) Number of total applicants =159
Number of students which can be accommodated in the hostel = 144
Number of students who will be denied hostel accommodation = 159 - 144 = *15*
Ans. *15 students will be denied hostel accommodation.*

E) If 4 rooms are maintained by 1 housekeeper
72 rooms will be maintained by 72 / 4 = 18 housekeepers.
Ans. *18 housekeepers are required for the hostel*.

2.

A) Cost of 1 printing machine = 1,100$
Cost of 4 printing machines = 1,100 × 4 = 4,400$
Ans. *The printing machines cost 4,400$ to the company.*

B) Number of pages printed by 1 machine in 1 minute = 180
Number of pages printed by 1 machine in 60 minute = 180 × 60 = 10,800
Number of pages printed by 4 machines in 60 minutes = 10,800 × 4 = 43,200
Ans. *The 4 printing machines will print 43,200 pages in1 hour.*

C) Number of pages printed by 1 machine in 60 minutes = 10,800
Number of pages printed by 3 machines in 60 minutes = 10,800 × 3 = 32,400
Ans. *The 3 machines will print 32,400 pages in 1 hour.*

D) In 1 minute 1 machine prints 180 pages.
In 1 minute 4 machines will print 180 × 4 = 720 pages.
In 30 minutes 4 machines will print 720 × 30 = 21,600 pages
Ans. *To complete the order 16,200 pages were printed.*