Phitron

MATH FOR PROGRAMMING

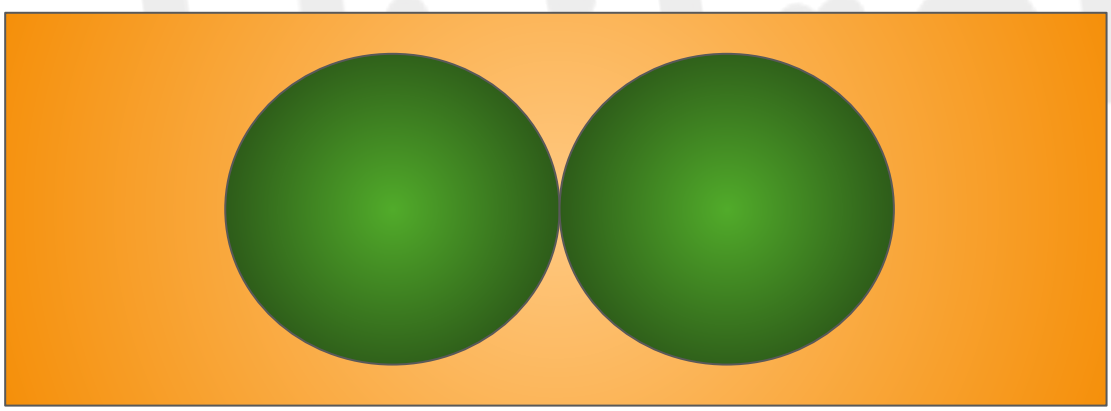
EXERCISES

Question 01:
Consider the following sets
U = {1,2,3,4,5,6,7,8,9,10,11,12,13}
A= {1,2,3,4,7}
B = {3,4,5,6}
Find the set - (AUB)'

Question 02:
Find the GCD and LCM of 77 and 121. Write the process in details

Question 03
In a cricket match, you have a squad of 15 players and you need to select 11 for a game. The two opening batsmans are fixed and the rest of the players are flexible. How many batting orders are possible for the game?

Question 04
If the radius of both of the green circles is 10 cm, find the area of the yellow region (outside of the circles but inside the rectangle)



Question 05:
Find the 100th term of the following sequence
3, 10, 17, 24, …
Also find the sum of the first 100 terms.

Question 06:
Two taps, T1 and T2 can fill an empty tank in 20 minutes and 15 minutes, respectively. They both were turned on to fill the tank, but tap T1 was turned off after some time, and tap T2 took 10 minutes to fill the tank. Find out after how much time tap T1 was turned off?

Question 07:
Your friend deposited 10,500 BDT in a bank and received 12,150 BDT in total after 3 years.
You deposited 15,100 BDT in another bank and received 18,755 BDT in total after 5 years.

Question 08:
Convert the hexadecimal number denoted by A1E7 to an octal number.

Question 09:
You have two boxes, box A and box B.

In box A, there are 5 red balls and 10 green balls.
In box B, there are 3 red balls and 7 green balls.

If you pick a ball from box A, what is the probability that this is a red ball?
If you pick a ball from box B, what is the probability that this is a red ball?

If you pick one from A and one from B, what is the probability that both of them are red balls?

Question 10:
Eight students took a test on 30 marks and got the following scores:

10, 27, 12, 18, 30, 9, 24, 28

What is the mean score and express the score in percentage. Also find the median score.