

Sample Questions for Quantitative Aptitude section (answers at the end)

1. To manage his weight, Xavier was keeping track of ice-creams he has been eating starting January 2022. The average number of ice creams he ate per month at the end of first month is 1. The average number of ice creams he ate per month at the end of the second month is 2. The pattern continues, and the average number of ice creams he ate per month at the end of the twelfth month is 12. What is the average number of ice creams he ate during the last six months?
- A) 18
 - B) 24
 - C) 6
 - D) 36

2. A chemist has three mixtures, which contains acid, water and salt in various proportions by weight:
- Mixture A: 50% acid, 40% water and 10% salt
 - Mixture B: 25% acid, 50% water and 25% salt
 - Mixture C: 45% water and 55% salt

In Jar X, the chemist adds equal weight of mixtures A, B and C and mixes them thoroughly. Next, in Jar Y, the chemist adds (a part of) the contents of jar X and mixture A in a 2:1 ratio and mixes them thoroughly. Finally, in Jar Z, the chemist adds equal weight of the contents of Jar X, Jar Y and mixture B.

What is contained in Jar Z (best approximation)?

- A) 28% acid, 46% water, 26% salt
 - B) 33.3% acid, 33.3% water, 33.3% salt
 - C) 22% acid, 48% water, 30% salt
 - D) 26% acid, 45% water, 29% salt
3. Amit and Bharat are starting at the same point on the circumference of the circle at the same time denoted by $t = 0$. Amit runs along the circumference while Bharat runs along the diameter of the circle. Their speeds are aligned such that Amit and Bharat will meet again on the other end of the circle. Now, Chetan, who has the same speed as Bharat starts from the centre of the circle, runs in the same direction as Bharat is running. How far will Chetan be from Amit (approximately), when Chetan reaches the circumference, if the diameter of the circle is 10 kilometres.
- A) 5 kilometers
 - B) 7 kilometers
 - C) 9 kilometers
 - D) 11 kilometers

4. How many solutions does the following equation have within the domain $|x| < 4$ and x being a real number?

$$2^{2 \sin x} - 2^{\sin x} = 2$$

- A) 0
B) 1
C) 2
D) 3 or more
5. A person is cycling from point A to point B, which are located 20 kilometres away. He covers the first 5 kilometres with a speed of 10 km per hour. He cycles at the speed of 20 km per hour for the next 15 minutes. How fast should he cover the remaining distance, so that his average speed for the entire journey is 16 km per hour?
- A) 16 kmph
B) 20 kmph
C) 22 kmph
D) 25 kmph
6. Albert takes one-third as much time as Bertha to finish painting a wall. Bertha, together with Carly finishes painting the wall in twice as much time as Albert does it alone. Carly, alone, takes 6 hours more than Bertha to finish the job.

How much time does Albert take to finish the job?

- A) 1 hour
B) 1 hour and 30 minutes
C) 2 hours
D) 2 hours and 30 minutes

Answer Key

1. A
18
2. A
28% acid, 46% water, 26% salt
3. B
7 kilometers
4. C
2
5. C
22 kmph
6. C
2 hours