

Data Interpretation Questions Overview

Data Interpretation Questions have a good weightage in the Banking Exam and the type of question asked in Banking exam is similar to the question mentioned below. It has been solved and explained by Gargi.ai Experts and they have tried to elaborate the concept used in Data Interpretation Questions.

Data Interpretation Questions

Directions: ABC is the outline of a mountain shaped in the form of a right triangle. A is the top of the mountain. Any person traveling through the sides of the mountain will have his speed affected by the inclination of the mountain. While traveling BA or AB, BC, or CB the speed remains unaffected. When there is an uphill climb of CA, the cos component of speed gets canceled while the sin component helps in up tracking. Similarly while doing down AC, the cos component helps in coming down while other gets canceled. Side AB is 36 km long. (Take $3 = 1.5$)

Question

Bikram starts from point B towards A, he intends to go to C from A. while Charles starts from C towards A and then intends to travels towards B. Speed of Bikram is 16 km/hr while the speed of Charles is 72 km/hr, they'll meet at what distance (in km) from point A.

Difficulty : Moderate

Average Time : 68 Seconds

Options :

1. 3.08
2. 3.41
3. 3.27
4. 2.95
5. 3.52

Solution

The correct answer is **Option 3** i.e. **3.27**

In triangle ABC, $AB = 36$,

$A = 60^\circ$ and $C = 30^\circ$

$$\tan 30^\circ = AB/BC$$

$$1/3 = 36/BC$$

$$BC = 363$$

$$\sin 30 = AB/AC$$

$$1/2 = 36/AC$$

$$AC = 72$$

$$\text{Speed of Charles while ascending} = 72 \times \sin 30 = 36 \text{ km/hr}$$

Charles will reach point A in 2 hours.

$$\text{Position of Bikram after 2 hours} = 36 - 2 \times 16 = 4 \text{ km away from A.}$$

Now, speed of Charles will be 72 km/hr and speed of Bikram is 16 km/hr

$$\text{Relative speed} = 72 + 16 = 88 \text{ km/hr}$$

$$\text{Time in which they will meet} = 4/88 = 1/22 \text{ hours}$$

$$\text{Distance from point A} = \text{Distance travelled by Charles in } 1/22 \text{ hours} = 1/22 \times 72 = 36/11 \text{ km} = 3.27 \text{ km}$$

