THINK BIGGER

TCS - 2025

TSD, TRAINS, BOATS & STREAM

INNATETALENT

TRANSFORMING FUTURE

TIME , SPEED AND DISTANCE

PROBLEMS ON TRAINS

Geeta travels from Point A to Point B 50 km in 1 hour, Point B to Point C 70 km in 2 hours, and Point C to Point D 90 km in 3 hours. What is the average speed of Geeta?

a) 45 km/hr

b) 30 km/hr

c) 35 km/hr

d) 40 km/hr

A train running at a certain speed crosses a platform of length 120 meters in 10 seconds, while it crosses a man standing on the platform in 6 seconds. Find the length and speed of the train.

A train crosses a platform in 10 seconds while running at a speed of 45 km/h and it takes 15 seconds to pass a man walking at 5 m/s in the same direction as the train. What is the length of the platform?

A train travels an average of 300 km with an average speed of 60 km/h and has already traveled for 30 minutes. Find the total time taken for the entire journey.

a) 5 hrs

b) 4.5 hrs

c) 4 hrs

d) None of these

Car A travels at a speed of 60 km/h and Car B travels at a speed of 40 km/h. If the distance between their starting point and destination is 240 km, find the average speed of the total journey for both cars.

a) 48 km/hr

b) 46 km/hr

c) 50 km/hr

d) None of these

A 200 meters long train passes a 400 meters long platform in 8 seconds. If a girl is walking at a speed of 2 m/sec along the track and the train is 3 km and 850 meters away from her, how much time will it take to reach the girl?

a) 50 minutes

b) 95 seconds

c) 45 minutes

d) 50 seconds

A man travels from point A to point B in 10 minutes and returns from point B to point A in 20 minutes. If the distance between A and B is the same, what is the average speed of the man for the entire journey?

a) 3D km/hr

b) 4D km/hr

c) 5D km/hr

d) 6D km/hr

Two stations X & Y are 1500 km apart. A train starts from station X and another train starts from station Y moving towards each other. If the sum of their speeds is half of the total distance, then how much time will they take to cross each other?

a) 1.5 hrs

b) 2.5 hrs

c) 2 hrs

d) 1 hr

A man travels ¼ of the distance at 50 km/h, another ¼ of the distance at 60 km/h, and the remaining distance at 80 km/h. What is the average speed for the entire journey?

a) 65.86 km/hr

b) 66.86 km/hr

c) 64.86 km/hr

d) 63.86 km/hr

One day John started 20 minutes late from home and reached his office 40 minutes late while driving 20% slower than his usual speed. How much time in minutes does John usually take to reach his office from home?

a) 60 mins

b) 80 mins

c) 65 mins

d) 90 mins

A man travels 800 km at a speed of 60 km/h, then travels 2500 km at a speed of 20 km/h, then travels 500 km by airplane at a speed of 300 km/h, and finally travels 20 km by taxi at a speed of 25 km/h. What is the average speed for the whole journey?

Train A travels 320 km in 4 hours, and Train B travels the same distance in 5 hours. What is the difference in their speeds?

a) 16 km/hr

b) 15 km/hr

c) 20 km/hr

d) None of these

By 9:00 AM, Person A ran from position X for 4 km at a speed of 16 km/h and then took a rest for 1 hour. Person B started running from position X at 1:00 PM at a speed of 32 km/h. At what time will Person B catch Person A?

a) 4 pm

b) 3.45 pm

c) 4.15 pm

d) 3.25 pm

A train starts from A at 1:00 PM and reaches B at 9:00 PM at the same speed V. It then starts from B at 9:30 PM and reaches C at 11:00 PM at the speed of V–20. If the distance between B and C is 150 km, then what is the speed of the train

a) 150 km/hr

b) 120 km/hr

c) 100 km/hr

d) None of these

Person A travels at a speed of 35 km/h and Person B travels at a speed of 40 km/h. If they start from the same point at the same time and travel in the same direction, after how much time will Person B be 5 km ahead of Person A?

a) 1

b) 5

c) 2

d) 3

A thief is spotted by a police officer at a distance of 270 km and starts to run. The thief runs at a speed of 8.7 km/h, while the police officer chases at a speed of 10.3 km/h. How far will the police officer have to run to catch the thief?

A cat is sitting 50 meters away from a moving bicycle. The bicycle is moving at a speed of 18 km/h, and the cat starts running behind the bicycle and catches it after 8 seconds. Find the speed (in km/h) of the cat.

a) 40.5 km/h

b) 63 km/h

c) 45 km/h

d) None of these

The ratio between the speed of bus and truck is 6:7 respectively. A bus can cover d km distance in 7 hours. A truck can cover (d-140) km distance in 5 hours. Then find out the value of d.

a) 840

b) 700

c) 660

d) 980

Two cars each from point X and Y respectively start travelling with the constant speed, where the distance between point X and Y is 150km then find the speed of the car with greater speed, given that if the cars move in the same direction they must meet in 6 hours and if they move towards each other then they must meet after 120 minutes.

a) 40 km/h

b) 45 km/h

c) 35 km/h

d) 50 km/h

Anil beats Shyam by 20 m in a 100 m race. If the speed of Shyam is 16 km/h then how much time Anil takes to cover 10 km distance?

a) 180 Minutes

b) 60 Seconds

c) 90 Minutes

d) None of these

BOATS AND STREAMS

If a boat rows downstream for 45 km and upstream for 39 km in 4 hours, and rows downstream for 65 km and upstream for 60 km in 5 hours, find the speed of the boat in still water.

A man rows downstream for 14 km in 2 hours and upstream for 15 km in 6 hours. What are the speeds of the boat in still water and the speed of the current?

The ratio of speed of A and B in still water is 2 : 3. A and B start their journey from the same point but in opposite directions. A goes in the direction of flow of the river. After 2 hours both of them stop and reverse their direction with half of their previous speed. They meet after 4 hours. Speed of the river is 10 m/s. Find the initial speed of A in still water.

a) 30 m/s

b) 50 m/s

c) 20 m/s

d) Cannot be determined

A boat can cover 240 km distance downstream in 3 hours. The same boat can cover the same distance in still water in 5 hours. Find out the speed of the stream.

a) 20 km/h

b) 30 km/h

c) 40 km/h

d) 32 km/h

A boat covers a 30 km distance towards downstream in 3 hours. If the speed of the boat is twice the speed of the current, then find the time taken by the boat to cover the same distance upstream.

a) 8 hrs

b) 10 hrs

c) 9 hrs

d) 12 hrs

A boat can cover 720 km distance downstream in 40 hours. The speed of boat in still water is double the speed of the stream. Then find out the time taken by boat to cover 480 km distance in upstream.

a) 100 hrs

b) 60 hrs

c) 40 hrs

d) 80 hrs

If the man can row 800m in 20 minutes against the current of the river, and returns the same distance in 10 minutes , then find the speed of man and speed of the river respectively.

a) 1, 1/3 m/s

b) 3, 5 m/s

c) 2,1/2 m/s

d) None of these

The upstream speed of a water boat is 6 km/hr and the downstream speed is 7.5 km/hr. Find the time taken by the boat to cover 30 km upstream and the same distance downstream.

a) 6 hours

b) 10 hours

c) 9 hours

d) 5 hours

A sailor was sailing at a speed of 15 m/s whereas the speed of a stream of 5 m/s. He travelled for 3 hours against the stream then he realised he passed his desired location so he travelled back for 30 minutes more in the direction of the stream. Find the total distance travelled by boat.

a) 126m

b) 172km

c) 144km

d) 126km

A boat covers a 48 km distance downstream in 4 hours. The speed of the stream is 3 km/h. If the speed of the boat is reduced by 50% then, find the time in which the boat will cover the same distance upstream.

a) 28 hours

b) 32 hours

c) 36 hours

d) 24 hours

DIFFERENTIATE

"YOURSELF"

FROM OTHERS !!

YouTube

SUBSCRIBE

INNATETALENT
TRANSFORMING FUTURE

INNATETALENT
TRANSFORMING FUTURE