



TIME, SPEED AND DISTANCE-3_CSAT_QUESTIONS

1. In a 3600 m race around a circular track of length 400 m, the faster runner and the slowest runner meet at the end of the fourth minute, for the first time after the start of the race. All the runners maintain uniform speed throughout the race. If the faster runner runs at thrice the speed of the slowest runner, then find the time taken by the faster runner to finish the race.
(A) 32 min (B) 30 min
(C) 20 min (D) 24 min
2. In a circular race of 2400 m length, A and B start with speeds of 36 km/h and 108 km/h, at the same time and from the same point. When will they meet for the first time at the starting point when running in the same direction and opposite directions?
(A) 120 sec, 60 sec
(B) 220 sec, 80 sec
(C) 240 sec, 120 sec
(D) 120 sec, 80 sec
3. The speed of two contestants A and B is in the ratio 4 : 5 in a 800 m race. If A has a start of 240 m, then A wins by?
(A) 30 m (B) 36 m
(C) 40 m (D) 32 m
4. P can give Q a start of 100 meters or 10 sec in a 2 km race, then how long does Q take to complete the race?
(A) 120 sec (B) 100 sec
(C) 240 sec (D) 200 sec
5. In a 400 meters race, A gives B an initial lead of 80 meters and C an early lead of 100 meters. How much will B give C an early lead in the same race?
(A) 30 m (B) 25 m
(C) 15 m (D) 20 m
6. In a race of 800 m, A can beat B by 45 m and C by 14 m, then in a race of 3930 m, C will beat B by:
(A) 130 m (B) 155 m
(C) 140 m (D) 160 m
7. In a 700 m race, A covers the distance in 27 sec while B covers the same distance in 63 seconds, then in this race A beats B by:
(A) 400 m (B) 250 m
(C) 420 m (D) 320 m
8. In a 1200 m race, Sourav runs at a speed of $\frac{5}{3}$ m/s. If Sourav gives a start of 80 m to Meenakshi and still beats her by 32 sec, then what is the speed of Meenakshi?
(A) $1\frac{23}{47}$ m/s (B) $1\frac{20}{47}$ m/s
(C) $1\frac{31}{7}$ m/s (D) 2.5 m/s
9. A and B run a 5 km race on a round course of 400 m. If their speed are in the ratio 5 : 4, the number of times, the winner passes the other, is:
(A) 1 (B) 2
(C) 3 (D) 5
10. A gives a start of 10 m to B in a 100 m race. B gives a start of 25 m to C in a 150 m race. How much start can A give to C in a 200 m race?
(A) 60 m (B) 40 m
(C) 80 m (D) 50 m
11. If the speed of a boat in still water is 20 km/hr and the speed of the current is 5 km/hr, then the time taken by the boat to travel 100 km with the current is:
(A) 2 hours (B) 3 hours
(C) 4 hours (D) 7 hours
12. If a swimmer moves to a certain distance downstream in 10 hours & returns the same distance upstream in 5 hours, then find the speed of swimmer in still water, if the speed of stream is 3 kmph?
(A) 6 kmph (B) 12 kmph
(C) 8 kmph (D) 9 kmph



13. The speed of boat with the current is 45 km/hr and the speed of current is 3.5 km/hr. Find the speed of boat against the current.
(A) 42 km/hr (B) 35 km/hr
(C) 36 km/hr (D) 38 km/hr
14. A boat takes 20 hours for travelling downstream from point A to point B and coming back to a point C which is at midway between A and B. If the velocity of the stream is 6 kmph and the speed of the boat in still water is 12 kmph, then what is the distance between A and B?
(A) 72 km (B) 108 km
(C) 84 km (D) 144 km
15. A boat sails 40 km of a river towards upstream in 8 hours. How long will it take to cover the same distance downstream, if the speed of current is one-fourth the speed of the boat in still water?
(A) $4\frac{4}{5}$ hours (B) 4.5 hours
(C) 5.2 hours (D) 5 hours
16. If the speed of boat in still water is 50 km/hr & the speed of stream is 10 km/hr, the boat rows to a place which is 403 km far & returns through the same path. What would be the average speed of boat during the journey?
(A) 45 kmph (B) 54 kmph
(C) 48 kmph (D) 56 kmph
17. If a boat travels with a speed of 15 km/hr in still water and the speed of stream is 5 km/hr, what would be the time taken by boat to go 180 km downstream?
(A) 9 hours (B) 8 hours
(C) 12 hours (D) 18 hours
18. A man rows a boat at 24 km upstream in 2 hours and 30 km downstream in 1 hour, then how long will he take to reach 210 km in still water?
(A) 12 hours (B) 9 hours
(C) 10 hours (D) 15 hours
19. Rahul covers a certain distance downstream in 2 hours & returns in 5 hours, then what would be its speed in still water if the speed of stream is 21 km/hr?
(A) 49 kmph (B) 42 kmph
(C) 56 kmph (D) 36 kmph
20. A boat travels at a speed of 16 kmph in still water and the speed of stream is 4 kmph. This boat travels a certain distance & then returns. If it takes 5 hours more for him to travel upstream than that of downstream, then find the distance between the two places.
(A) 120 km (B) 150 km
(C) 100 km (D) 140 km
21. If the speed of boat in still water is 30 km/hr & the speed of stream is 6 km/hr, the boat rows to a place which is 379 km far & returns through the same path. What would be the average speed of boat during the journey?
(A) 28.5 kmph (B) 30.2 kmph
(C) 28.8 kmph (D) 26.9 kmph
22. If a swimmer moves to a certain distance downstream in 15 hours & returns the same distance upstream in 25 hours, then find the speed of swimmer in still water, if the speed of stream is 7 kmph?
(A) 24 kmph (B) 32 kmph
(C) 30 kmph (D) 28 kmph
23. A boat goes 6 km an hour in still water, but takes thrice as much time in going the same distance against the current. The speed of the current (in km/hour) is:
(A) 4 (B) 5
(C) 3 (D) 2
24. Speed of a boat is 5 km per hour in still water and the speed of the stream is 3 km per hour. If the boat takes 3 hours to go to a place and come back, then find the distance of the place.
(A) 3.75 km (B) 4 km
(C) 4.8 km (D) 4.25 km
25. In a fixed time, a boy swims double the distance along the current that he swims against the current. If the speed of the current is 3 km/hr, the speed of the boy in still water is:
(A) 6 km/hr (B) 9 km/hr
(C) 10 km/hr (D) 12 km/hr