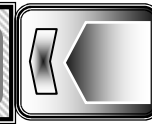




Time & Speed



❑ **Important Formula:** $\text{Speed} = \frac{\text{Distance}}{\text{Time}}$, $\text{Time} = \frac{\text{Distance}}{\text{Speed}}$, $\text{Distance} = (\text{Speed} \times \text{Time})$

📁 General problems:

1. A man walking non-stop along a road at 3 km per hour is overtaken by a car running at 30 km/h. If the car breaks down 1 km beyond where it passes the man, how many minutes after the breakdown does he reach the car? [*National Bank (Off)-1997 (Written)*]
Ans: 18 mins
2. A train travels at an average speed of 100 km/hr, stopping for 3 minutes after every 75 km. How long did it take to reach its destination 600 km from the starting point? [*Microcredit Regulator Authority (AD)-2021(Written)*]
6 hrs 21 min. (Ans)

📁 Self Task:

3. An express train travelled at an average speed of 100 kmph, stopping for 3 mins after 75 km. A local train travelled at a speed of 50 kmph, stopping for 1min after every 25 km. If the trains began travelling at the same time, how many km did the local train travel in the time it took the express train to travel 600 km. [*gmatclub.com*]
Ans: 307.5 km
4. Karim drove for an hour and half at 50 miles per hour. When he realized that it would be dark very soon, he raised his speed to 55 miles per hour and continued at the same speed to the end of the journey. The total distance Karim drove was 174 miles. How long did he drive at 55 miles per hour? [*Eastern Bank (MTO)-2007-(Written)*]
= 1hr 48 mins
5. A man walks 30 minutes at an average speed of 3 miles/hours. He waits 10 minutes for a bus, which back him to his starting point at 3:15. If he began his walk at 2:25 the same afternoon. Find out the average speed of the bus. [*Mercantile Bank (Officer)-2009(written)*]
Ans: 9 mph

📁 Average Speed related:

6. A person travels from x to y at a speed of 40km/hr and return by increasing his speed by 50%. What is his average speed for both the trips? [*BKB Cash-2013 (Written)*]
= 48km
7. Two cars started from the same point and traveled in opposite directions. After 2 hours of travelling, the cars were 208 miles apart on a straight line. If the average speed of one car was 8 miles more than the other, calculate the average speed of each car. [*Social Investment Bank Ltd-2004(Written)*]
Ans: 48 & 56
8. A car averages 40 miles per hour for the first 6 hours of a trip and averages 60 miles per hour each additional hour of a travel time. If the average speed of the entire trip is 55 miles per hour, how many hours long is the trip? [*City Bank (Off) -1999(Written)*]
= 24hrs
9. Mr. Nader drove from Mymensingh to Dhaka at 60 miles/hr. Returning on the same route, then was a lot of traffic, and he was only able to drive at 40 miles/hr. If the return trip took 1 hour longer, what is the distance between Dhaka and Mymensingh? [*Basic Bank Ltd.(AM)-2012(Written)*]
Ans: 120 miles.

Self task:

10. A car traveled 75% of the way from town A to town B at an average speed of 50 mph. The car travels at an average speed of S mph for the remaining part of the trip. The average speed of the entire trip was 40 mph. What is the value of S? [HBFC(SO)-2007(Written)]
Ans: 25 miles/hr

 Relative speed related: Opposite direction:

11. One biker is faster by 5 km/hr than another biker. They go to the opposite direction. What is the rate of each if they go 195 km in 3 hour? [IFIC Bank – 2021 (Written)]
Ans: 30km/hr & 35km /hr
12. Sheela and Meela are 4 miles apart. If Sheela starts walking toward Meela at 3 miles per hour and at the same time Meela starts walking toward Sheela at 2 miles per hours, how much time will pass before they meet? [National Bank (PO)-2013(written)]
Ans: 48 min
13. Two trains, one from Dhaka and another from Chittagong simultaneously started proceed towards each other at the speed of 16 km and 21 km per hour respectively. As the trains met each other it was found that one tram travelled 60 km more than the other. Calculate the distance between Dhaka to Chittagong. [Agrani Bank- (SO) - 2017(Written)]
Ans: 444 km

 Self Task:

14. Two trains start at the same time from A and B and proceed towards each others at the speed of 75 km/h and 50 km/h respectively. When both meet at a point in between , one train was found to have travelled 175 km more than the other. Find the distance between A and B. [examveda.com]
Ans: 875km
15. The distance between two cities A and B is 330 km. A train starts from A at 8 a.m. and travel towards B at 60 km/hr. Another train starts from B at 9 a.m and travels towards A at 75 km/hr. At what time do they meet? [competoid.com] + [PKB (EO- Cash)-2018]=11 a.m.

 Self Task:

16. A and B are two stations 195 km. apart. A train starts from A at 8 a.m. and travels towards B at 60 km/hr. Another train starts from B at 9 a.m. and travels towards A at 75 km/hr. At what time do they meet? [Shajalal islami bank ((TSO)- 2007 (Written)]
Ans: 10am.
17. At 8:00 A.M. a car started from Dhaka towards Cox's Bazar at a speed of 50 km per hour. After one hour, another car started from Dhaka towards Cox's Bazar at a speed of 60 km per hour. After how much time and at what distance from Dhaka the second car will overtake the first car? [BB (AD)-2004 (Written)]
Ans: 5 hrs & 300km
18. The distance between X and Y is 45 miles. One hour after Yasmin started walking from X to Y, Babul started walking along the same road from Y to X. If Yasmin's walking rate was 3 miles per hour and Babuls was 4 miles per hour, how many miles had Babul walked when they met? [Eastern Bank (officer)-2005-(Written)]
Ans: 24 miles.

19. A and B are two stations 390 km apart. A train starts from A at 10 a.m. and travels towards B at 65 kmph. Another train starts from B at 11 a.m. and travels towards A at 35 kmph. At what time do they meet? [Sonal Bank- (SO-FF)-2019-(Written)] Ans: 2:15 pm
20. The distance between two stations 'X' and 'Y' is 450 km. A train L Starts at 6:00 pm from X and moves towards Y at an average speed of 60 km/h. Another train M starts from Y at 5 : 20 pm and moves towards X at an average speed of 80 km/h. How far from 'X' will the two trains meet and at what time? [Sonal Bank-(off: FF-quota)-2019-(Written)]
Ans: 170km & 8:50 pm
21. A train leaving Dhaka at 6 am reaches Mymensing at 10 am and another train leaving Mymensing at 7 am reaches Dhaka at 12 noon. At what time the two trains running in opposite direction should meet? [examveda.com] +[BDBL (SO)-2011] Ans: 8:40 am

Self Task:

22. A train M leaves station X at 5 a.m and reaches station Y at 9 a.m. Another train N leaves station Y at 7 a.m. and reaches station X at 10.30 a.m. At what time do the two trains cross each other? [doubtnut.com] Ans: 7.56

Same direction:

23. Rashed is driving at a speed of 120 km per hour. Mahi started one hour late and started driving at a speed of 140km/hr. How long will it take for Mahi to catch up Rashed? [Janata Bank (AEO-RC) -2017 (Written)] Ans: 6 hrs

Self Task:

24. A train leaves Dhaka Station at 9:00 a.m. at the speed of 12 mph. 20 minutes later, another train leaves Dhaka Station in the same direction at 36 mph. At what time will they meet? [City Bank Officer 2001] Ans: 9.30 a.m
25. Train X leaves New York at 10:00 AM and travels East at a constant speed of x miles per hour. If another Train Y leaves New York at 11:30 AM and travels East along the same tracks at speed $\frac{4x}{3}$, then at what time will Train Y catch Train X? [FSIBL-(PO)-2021(Written)] Ans: 4 PM
26. At 9.00 A.M. the 'Titas Express' left the station heading South. Two hours later the train 'Surma Express' left the same station on a parallel track in the same direction. 'Titas' Speed average 60km/hr for the first hour then averaged 50 km/hr for the rest of the trip. Meanwhile, Surma's speed averaged 75 km/hr throughout the trip. At what time did Surma pass Titas? [Bangladesh Shilpa Bank-2004 (Written)] Ans: 3.24P.M
27. Fahim and Rishad both started at the same time from Point A to Point B at speeds of 52 kmph and 39 kmph respectively on the same road. As soon as Fahim reaches Point B, he turns back, starts toward point A on the same road, and meets Rishad on the way. How far from Point B do the two of them meet, if the distance between the points is 70 km? (Exim Bank. T.Off. -2015) Ans: 10km
28. Arif starting from X goes to Y. At the same time Bobby starts from Y and goes towards X. Once Arif reaches Y, he changes his direction and returns to X. Once Bobby reaches X, he changes his direction and returns to Y. Throughout the journey, Arif travels at 54 kmph and Bobby travels at 72 kmph. By the time they meet for the second time, Bobby covers 36 km more than Arif. Find the distance (in km) between X and Y? [gmatclub.com] Ans: 84

29. Ravi walks to and fro to a shopping mall. He spends 30 minutes shopping. If he walks at a speed of 10 km an hour, he returns home at 19.00 hour. If he walks at 15 km an hour, he returns home at 18.30 hours. How far must he walk in order to return home at 18.15 hours. [examveda.com]

Ans: 20km/hr

☐Self Task:

30. Two cars starts at the same time from A and B which is 120 km apart. If the two cars travel in opposite direction they meet after one hour and if they travel in same direction (from A towards B) then A meet B after 6 hours. What is the speed of car starting from A? [competoid.com]

Ans: $x = 70$

📁Circular track related:

31. A, B and C start at the same time in the same direction to run around a circular stadium. A completes a round in 252 seconds, B in 308 seconds and C in 198 seconds, all starting at the same point. After what time will they again at the starting point? [Microcredit Regulator Authority (AD)-2021]

Ans: 46 min 12 sec

32. Two cars race around a circular track in opposite directions at constant rates. They start at the same point and meet every 30 seconds. If they move in the same direction, they meet every 120 seconds. If the track is 1800 meter long, what is the speed of each car? [Banglades Bank AD-2011- (written)]

Ans:135km/hr & 81km/hr

☐Self Task:

33. A, B, and C run simultaneously, starting from a point, around a circular track of length 1200m, with respective speeds of 2m/s, 4m/s, and 6m/s. A and B run in the same direction while C runs in the opposite direction to the other two. After how much time will they meet for the first time? (in sec) [handakafunda.com]

Ans: 600 sec (Ans)

📁Race related:

34. A person running an 800-meter race averages 130 meters per minute for the first $\frac{3}{4}$ th of the race. The average speed for the remainder of the race is 145 meters per minute. What is the person's average speed for the entire 800 meters rounded to the nearest whole number? [Jibon Bima Cor: (AM)- 2020 (Written)]

Ans: 134 m/min

35. In a kilometer race, A beats B by 100 m and B beats C by 150 m. In the same race, by how many meters does A beat C? [doubtnut.com]

Ans: 235m

☐Self Task:

36. In a race of 200 m, A can beat B by 31 meter and C by 18meter. In a race of 350m, C will beat B by- [sawaal.com]

Ans: 25 m

37. The sum of a race time of two runners is 170 seconds. One of the runners took ten seconds less twice the other to complete the race. What is the race time of each runner? [Janata & Sonali Bank (SO-IT)-2018]

Ans : 60 Sec & 110 Sec

38. Three runners A,B and C run a race, with runner A finishing 12m ahead of runner B and 18m ahead of runner C, while runner B finishes 8m ahead of runner C. Each runner travels entire distance at a constant speed. What was the length of the race? [Combined 5Banks (Off-Cash)-2019(Written)]

Ans: 48m

 **Equation related:**

39. A person travels between 'A' & 'B' at 3 km per hour and returns from 'B' to 'A' at 5 km per hour. He took 8 hours for journey. What is the distance between A and B? [AB Bank (PO) : 1997] **Ans: 15km**
40. A man's running speed is 3 times of his walking speed. He runs a distance and come back by walking total time taken 2 hrs. What was the distance if he runs 9 miles per hour? [Shajalal Islamic Bank Ltd. (TSO) – 2016 (Written)]+ [IFIC Bank- 2013 (Written)] & [Madhumoti Bank -(PO)-2017] **Ans: 4.5 miles**

Self Task:

41. A person travels between 'A' to 'B' at 9 miles per hour and returns from 'B' to 'A' at 15 km per hour. He took 8 hours for journey. What is the distance between A and B? [AB Bank (PO)-2020 (Written)] **Ans: 45km**
42. Jane covered a distance of 340 miles between city A and city B taking a total of 5 hours. If part of the distance was covered at 60 miles per hour speed and the balance at 80 miles per hour speed, how many hours did she travel at 60 miles per hour? [DBBL-(PO)-2015-(written)] + [Dhaka Bank (TO)-2017 (Written)]+[Southeast Bank (PO)- 2020 (Written)] = 3 hrs
43. Rahim drives from Jessore to Chuadanga in 45 minutes. The road between Jessore and Chaudange is 48km long and it consists of both rough and good surfaces. Where the surface is good, Rahim drives at 72km/hr; and where the surface is bad, he drives at 48km/hr. Find the number of kms of good surface? [BRDB-2004 (Written)]+ [IBA] = 36

Self Task:

44. A farmer travelled a distance of 61km in 9hours. He travelled partly on foot at 4 km/hr and partly on bicycle at 9km/hr. The distance travelled on foot is? [www.toppr.com] + [www.indiabix.com] + [www.examveda.com] **Ans: 16kms**
45. A boy covers a distance of 6 km partly by walking and partly by cycling. If he cycles at 18 km per hour and walks at 6km per hour and takes 35 minutes in all, find the distance he covers by walking. [Janata, Sonali, Agrani Rupali Bank (Officer) Cash-2008 (Written)] **Ans: $\frac{9}{4}$ km or 2.25km**
46. A man has to go 10 km to catch a bus. He walks part of the way at 7 km per hour and runs the rest of the way at 12 km per hour. If he takes 1 hour 15 minutes to complete his journey. Find how far he walked. [Modhumoti Bank Ltd. (PO) – 2016 (Written)] & [One Bank (SCO)-2017-(Written)] **Ans: 7 km.**
47. After travelling 108 km, a cyclist observed that he would have required 3 hrs less if he could have travelled at a speed 3 km/hr more. At what speed did he travel? [BDBL-(SO)-2018- (Written)]+ & [BB-(AD-General)-2018-(Written)] **Ans: 9 km/hr.**

Self Task:

48. Two electric cars each completed a 300 mile race. If the faster car completed the race in 3 hours less time than did the slower car, and at an average speed 5 miles per hour greater than that of the slower car, what was the slower car's average speed for the race? [gmatclub.com] **Ans: 20km/hr]**

49. Mr. Arif and Mr. Afzal started from point A and reached point B in 10 minutes and 9 minutes respectively. If the travelling speed of Mr. Arif was 2 km/hr less than that of Mr. Afzal, what was the distance between A and B in kms? [Mercantile Bank (PO) : 2003]

Ans: 3km

50. Robi drove 100 miles to visit a friend. If he had driven 8 miles per hour faster than he did, he would have arrived in $\frac{5}{6}$ of the time he actually took. How many minutes did the trip take? [BB (Officer)-2015-(written)]

Ans: 150 mins

☐ Self Task:

51. A car covers a distance of 715km at a constant speed. If the speed of the car would have been 10km/hr more, then it would have taken 2 hours less to cover the same distance. What is the original speed of the car? [placementstudy.com] + [doubnut.com] Ans: 55km/hr

📁 Reach Early or Late:

52. Mr. Sakil leaves his office at a certain fixed time. If his walking speed is 5 kmph then he is 7 minutes late. When his speed is 6 kmph he reaches 5 minutes earlier. How far is the office from his house? (Janata Bank Ltd. (EO-FA)- 2015-(Written)] + [Premier Bank Ltd. (MTO)-2015(written)]- & [BKB-(SO)-2017(Written)]

Ans: 6 km

☐ Self Task:

53. If I walk at the rate of 4 kmph I miss the train by 10 minutes. If I walk at the rate of 5 kmph I reach 5 minutes before the arrival of the train. How far is the station from my house assuming that I start walking from my house? [UCBL Bank Ltd. (TO) -2014 (Written)]

Ans: 5km

54. A man started at 8am. from his home, walked at the rate of 3km/hr and reached his office 45 minutes late. The next day he started at the same time and walked at the rate of 5km/hr and reached his office 15 minutes earlier. What is the distance between his office and home? [Mercantile Bank Ltd -2004 (Written)]

Ans: 7.5km

55. A student goes to school at the rate of $2\frac{1}{2}$ km/h and reaches 6 min late. If he travels at the speed of 3 km/h he is 10 min early. What is the distance to school? Ans: 4 km

📁 Speed increase or decrease:

56. A bus travels a distance of 315 km at a uniform speed. If the speed of the bus were 90% of the original speed, it would have taken 2.5 hrs more to cover the same distance. The original speed was. [EXIM Bank (TO)-2020(Written)]

Ans: 14 km/hr

57. One day, Mr. Richards started 30 minutes late from home and reached his office 50 minutes late, while driving 25% slower than his usual speed. How much time in minutes does Mr. Richards usually take to reach her office from home? [Gmatclub.com] + [Social Islami Bank (PO)-2013 (Written)]

Ans: 1hr or 60 mins

58. The average speed of train in the onward journey is 25% more than that in the return journey. The train halts for an hour on reaching the destination. The total time taken for the complete journey to go and return is 17 hours, covering a distance of 800 km. Find the speed of the train in the onward journey? [Pubali Bank (SO/O)-2017(Written)]

Ans: 56.25kmph

☐Self Task:

59. A train left kamalapur station 50 minute late. After covering $\frac{3}{5}$ of total distance, it increased its speed by $\frac{1}{5}$ of original speed and reached destination 5 minute late. Find time taken by the train to complete the journey. [*careerbless.com*] **Ans: 10.5 hr**
60. In a flight of 600km, an aircraft was slowed down due to bad weather. Its average speed for the trip was reduced by 200km/hr and the time of flight increased by 30 minutes. Find out the duration of the flight? [*Rupali Bank Ltd.(JO)-2013(written)*] & [*PKB-(SEO)-2018-(Written)*]+[*Janata Bank (AEO)-2020 (Written)*] **Ans:1 hr**

☐Self Task:

61. In a flight of 1200 km, an aircraft was slowed down due to bad weather. Its average speed for the trip was reduced by 400 km/hr and the time of flight increased by 30 minutes. The duration of the flight is: **Ans: 1hr**
62. A motorist and a cyclist start from A to B at the same time. A to B is 18 km. The speed of motorist is 15km/hr more than the cyclist. After covering half the distance, the motorist rest for 30 minutes and thereafter his speed is reduced by 20%. If the motorist reaches the destination B, 15 minutes earlier than that of the cyclist, then find the speed of cyclist. [*Combined 4banks (officer – cash)-2018 (Written)*] **Ans: 12kmph**

📁Double equation related:

63. Abul and Balam ran, at their respective constant rates, a race of 480m. In the first heat, Abul gives Balam a head start of 48m and beats him by $\frac{1}{10}$ th of a minute. In the second heat, Abul gives Balam a head start of 144m and is beaten by $\frac{1}{30}$ th of a minute. What is Balam's speed in m/s? [*DBBL (PO) – 2016 (Written)*]+[*Dhaka Bank (MTO)-2016*] **Ans: 12 m/s**
64. Two rabbits start running towards each other, one from A to B and another from B to A. They cross each other after one hour and the first rabbit reaches B, $\frac{5}{6}$ hour before the second rabbit reaches A. If the distance between A and B is 50 km. What is the speed of the slower rabbit? [*BSC Combined SO (8 Banks & FIs)-2018 (Written)*] **Ans: 20km/hr**

☐Self Task:

65. Two foxes start running towards each other, one from A to B and another from B to A. They cross each other after one hour and the first fox reaches B, $\frac{5}{6}$ hour before the second fox reaches A. If the distance between A and B is 100 km. what is the speed of the slower fox? **Ans: 40km/hr**
66. Three cars leave A for B in equal time intervals. They reach B simultaneously and then leave for Point C which is 240 km away from B. The first car arrives at C an hour after the second car. The third car, having reached C, immediately turns back and heads towards B. The first and the third car meet a point that is 80 km away from C. What is the difference between the speed of the first and the third car? [*gmatclub.com*] **Ans: 60km/hr**
67. A cow was standing on a bridge, 5m away from the middle of the bridge. A train was coming towards the bridge from the ends nearest to the cow. Seeing this, cow ran towards the train and managed to escape when the train was 2m away from the bridge. If it had run at the opposite direction, it would hit by the train 2m before the end of the bridge. What is the length of the bridge in meters assuming the speed of the train 4 times that of cow ? [*Combined 4 Bank-(Officer)-2019(Written)*] + [*sawaal.com*] **Ans: 32m**

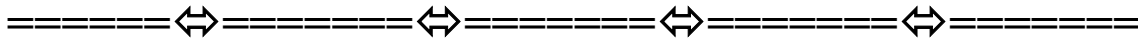
☐ Self Task:

68. A cow was standing on a bridge, 7m away from the middle of the bridge. A train was coming towards the bridge from the ends nearest to the cow. Seeing this, cow ran towards the train and managed to escape when the train was 5m away from the bridge. If it had run in the opposite direction, it would hit by the train 2m before the end of the bridge. What is the length of the bridge in meters assuming the speed of the train is 4 times that of the cow? [sawaal.com] Ans: 45m

69. A train after traveling 50 km meet with accident and then proceed $\frac{3}{4}$ of its former speed and arrives destination 25 min late. Had the accident occurred 24 km behind it would reach destination 35 min late. Find the speed and distance traveled by train. [toppr.com]+[gmatchclub.com] Ans: Original speed 48km/hr & distance is 110km

☐ Self Task:

70. A train after travelling 150 km meets with an accident and then proceeds at $\frac{3}{5}$ of its former speed and arrives at its destination 8 hours late. Had the accident occurred 360 km further, it would have reached the destination 4 hours late. What is the speed & total distance travelled by the train? [gmatchclub.com] Ans: 60km/hr & 870 km



Practice Part

📖 Easy Part:

1. In a 40-mile trip, the first 20 miles were traveled in 50mph. If the total trip average speed is 60mph, what should be the average speed in the last 20 miles? [gmatchclub.com]
2. A man completes a certain journey by a car. If he covered 30% of the distance at the speed of 20kmph, 60% of the distance at 40kmph and the remaining of the distance at 10kmph, what is his average speed? [examveda.com/competoid.com]
3. Two boys starting from the same place walk at a rate of 5kmph and 5.5kmph respectively. What time will they take to be 8.5km apart, if they walk in the same direction? [sawaal.com]
4. Two persons start running simultaneously around a circular track of length 300 m from the same point at speeds of 15 km/hr and 25 km/hr. When will they meet for the first time any where on the track if they are moving in opposite directions? [sawaal.com]
5. Two trains X and Y, started simultaneously from opposite ends of a 100-mile route and traveled toward each other on parallel tracks. Train X travelling at a constant rate, completed the 100-mile trip in 5 hours; train Y, travelling at a constant rate, completed the 100-mile trip in 3 hours. How many miles had Train X traveled when it met train Y? [gmatchclub.com]
6. Mr. Arif had traveled one-third the total distance when his car broke down. He finished the journey on foot, spending 20 times as long walking as he had spent driving. If his average walking speed was 5 km/hr, what was his average driving speed? [Dutch Bangla Bank (PO) : 2003(Written)]

7. A man travelled a distance of 80 km in 7 hours partly on foot at the rate of 8 km per hour and partly on bicycle at 16 km /hr. Find the distance travelled on foot? [*sawaal.com*]
8. A person covers a certain distance with certain speed. If he increases his speed by 15 km/hr, then he will be 16 min early. By how much time he will be late if he reduces his speed by 12 km/hr, if his initial speed is 60 km/hr? [*Gmatclub.com*]

□ Medium Part:

9. Katappa and Bahu starts horse riding race between points A and B, 30 km apart. Katappa starts at 9 am from A at speed of 10 kmph to reach B and returns to A at the same speed, while Bahu starts at 9:45 am from A at speed of 15kmph to reach B and then comeback to A at the same speed. At what time do they meet for first time? [*doubtnut.com*]
10. The distance of the college and home of Rajeev is 80km. One day he was late by 1 hour than the normal time to leave for the college, so he increased his speed by 4km/hr and thus he reached to college at the normal time. What is the changed (or increased) speed of Rajeev? [*sawaal.com*]
11. Train T leaves station X for station Y at 3 pm. Train S, traveling at three quarters of the speed of T, leaves Y for X at 4 pm. The two trains pass each other at a station Z, where the distance between X and Z is three-fifths of that between X and Y. How many hours does train T take for its journey from X to Y? [*gmatclub.com*]
12. Two cars P and Q start at same time from A and B which are 120 km apart if two cars travel in opposite direction they meet after one hour and if they travel in same direction(from A toward B) then P meets Q after 6 hours what is speed of car P? [*competoid.com*] + [*brainly.in*]
13. A old man driving bike at 80 km per hour. However being sugar patient, old man could not travel continuously. He takes small breaks each of 2 minutes for every 15 minutes of his drive. How much distance the old man will cover in 90 minutes? [*examveda.com*]

📖 Hard Part:

14. Distance between Dhaka New Market and Gabtoli is 12 km. From New Market Sajal departed for Gabtoli by rickshaw at the speed of 6 km per hour and Kajal from the same place departed for Gabtoli on foot at the speed of 4 km per hour. After reaching Gabtoli Sajal took rest for 30 minutes and then departed for New Market at the same speed. At which distance from New Market they will meet? [*Class 9-10 (5.1)*]
15. The speed of a bus during the second hour of its journey is twice that in the first hour. Also, its speed during the third hour is two-third the sum of its speeds in the first two hours. Had the bus travelled for three hours at the speed of the first hour, it would have travelled 120 km less. Find the average speed of the bus for the first three hours? [*examveda.com/competoid.com*]
16. After travelling 3 hours a train meets with an accident due to this it stops for an hour. After this the train moves at 75% speed of its original speed and reaches to destination 4 hours late. If the accident would occur at 150 km ahead in the same line then the train reaches only 3.5 hours late. Then find the distance of journey and the original speed of the train? [*gmatclub.com*]

17. A train which travels at a uniform speed due to some technical fault after traveling for an hour goes at $\frac{3}{5}$ th of the original speed reached the destination two Hours late. If the fault occurred after traveling another 50 miles , the train would have reached 40 minutes earlier . What's the difference between the two station? *[examveda.com]*
18. Kim and Om are travelling from point A to B, which are 400 km apart, travelling at a certain speed Kim takes one hour more than Om to reach point B. If Kim doubles her Speed she will take 1 hour 30 mins less than Om to reach point B. At what speed was kim driving from point A to B *[examveda.com]*
19. A man travels from A to B at a speed x km/hr. He then rests at B for x hours, He then travels from B to C at a speed $2x$ km/hr and rests for $2x$ hours. He moves further to D at a speed twice as that between B and C. He thus reaches D in 16 hr. If distances A-B, B-C and C-D are all equal to 12 km, then find the time for which he rested at B. *[toppr.com]*
20. A bus from city M is traveling to city N at a constant speed while another bus is making the same journey in the opposite direction at the same constant speed. They meet in point P after driving for 2 hours. The following day the buses do the return trip at the same constant speed. One bus is delayed 24 minutes and the other leaves 36 minutes earlier. If they meet 24 miles from point P, what is the distance between the two cities? *[gmatclub.com]*

