# Problems on Trains

**Type I – Basic Speed conversion**

1) 54 Km/h is. (in m/s)

2) 60 m/s is (in Km/h)

**Type II- Train is crossing standing man/pole**

1) A train 400m long can cross an electric pole in 20sec, then find the speed of the train?
A.) 65 Kmph B.) 70 Kmph
C.) 72 Kmph D.) 75 Kmph

2) A train is running at 72 Kmph. It was crossed an electronic pole in 20sec. find the length of the train?
A.) 300m B.) 400m
C.) 250m D.) 405m

3) A train is running at 108 Kmph. It was crossed a standing man in 28sec. find the length of the train?
A.) 480m B.) 840m
C.) 640m D.) 740m

**Type III- Train is crossing bridge/tunnel/platform/another stationary train**

1) A goods train runs at the speed of 72 km/hr and crosses a 250 m long platform in 26 seconds .What is the length of the goods train?
A.) 270 m B.) 250 m
C.) 130 m D.) 230 m

2) A train 130 m long passes a bridge in 21 sec moving with a speed of the 90 km/hr. Find the length of the bridge.
A.) 415 B.) 395
C.) 405 D.) 385

3) A train 360 m long is running at a speed of 45 km/hr. In what time will it pass a bridge 140 m long?
A.) 48 seconds B.) 42 seconds
C.) 40 seconds D.) 45 seconds

4) A train passes a station platform in 36 seconds and a man standing on the platform in 20 seconds. If the speed of the train is 54 km/hr ,what is the length of the platform?
A.) 180 m B.) 200 m
C.) 240 m D.) 300 m

5)A train moves past a telegraph post and a bridge 264 m long in 8 seconds and 20 seconds respectively. What is the speed of the train?
A.)9.5 km/hr B.)70 km/hr
C.)79 km/hr D.)79.2 km/hr

**Type IV- Train is crossing another moving object (Both are going in same direction)**

1) Two trains are running at 40 km/hr and 20 km/hr respectively in the same direction. Fast train completely passes a man sitting in the slower train in 5 seconds. What is the length of the fast train?
A.) 23 m B.) 23 (2/9 ) m
C.) 27 (7/9 ) m D.) 29 m

2) A train overtakes two persons walking along a railway track. The first one walks at 4.5 km/hr. The other one walks at 5.4 km/hr. The train needs 8.4 and 8.5 seconds respectively to overtake them. What is the speed of the train if both the persons are walking in the same direction as the train?
A.) 96 km/hr B.) 81 km/hr
C.) 51 km/hr D.) 76 km/hr

3) The two trains of lengths 400m, 600m respectively, running at same directions. The faster train can Cross the slower train in 180sec, the speed of the slower train is 48km. then find the speed of the faster train?
A.) 58 Kmph B.) 68 Kmph
C.) 78 kmph D.) 55 Kmph

4) A train overtakes two persons who are walking in the same direction in which the train is going, at the rate of 2 kmph and 4 kmph and passes them completely in 9 and 10 seconds respectively. The length of the train is:
A.)45 m B.)50 m
C.)54 m D.)72 m

5) Two trains are running on parallel lines in the same direction at speeds of 60 km/h and 35 km/h respectively. The faster train crosses a man in the slower train in 54 second. If the length of the slower train is 4/5th of the faster train, find the length of the slower train.
A)250 m B)375 m
C)450 m D)396 m E)None of these

**Type V- Train is crossing another moving object (Both are going in opposite direction)**

1) Two trains running in opposite directions at 40kmph and 50kmph, cross each other in 30sec. the length of one train is 250m, then find the length of other one?
A.) 440m B.) 490m
C.) 500m D.) 510m

2) Two trains of equal lengths take 10 seconds and 15 seconds respectively to cross a telegraph post. If the length of each train be 120 metres, in what time (in seconds) will they cross each other travelling in opposite direction?
A.) 10 B.) 12
C.) 15 D.) 20

3) Two trains are moving in opposite directions @ 60 km/hr and 90 km/hr. Their lengths are 1.10 km and 0.9 km respectively. The time taken by the slower train to cross the faster train in seconds is:
A.)36 B.)45
C.)48 D.)49

4) Two trains, each 100 m long, moving in opposite directions, cross each other in 8 seconds. If one is moving twice as fast the other, then the speed of the faster train is:
A.)30 km/hr B.)45 km/hr
C.)60 km/hr D.)75 km/hr

**Type VI – Logical Questions**

1) Two trains, one from Howrah to Patna and the other from Patna to Howrah, starts simultaneously. After they meet, the trains reach their destinations after 9 hours and 16 hours, respectively. The ratio of their speeds is?
A.) 2:3 B.) 4:3 C.) 6:7 D.) 9:16

2) Two stations A and B are 110 km apart on a straight line. One train starts from A at 7 a.m. and travels towards B at 20 kmph. Another train starts from B at 8 a.m. and travels towards A at a speed of 25 kmph. At what time will they meet?
A.)9 a.m. B.)10 a.m.
C.)10.30 a.m. D.)11 a.m.

3) Two trains, A and B start from the stations X and Y towards each other. They take 4 hours 48 mins and 3 hours 20 mins to reach Y and X respectively after they meet. If train A is moving at 45 km/hr, then the speed of train B is
A)60 km/hr B)64.8 km/hr
C)54 km/hr D)37.5 km/hr

4) A goods train leaves a station at a certain time and at a fixed speed. After 8 hours, an express train leaves the same station and moves in the same direction at a uniform speed of 120 kmph, this train catches up the goods train in 7 hours. Find the speed of the goods train.
A)50 B)48 C)56 D)60

5) A train started from point A at a speed of 60 km/hr and after 2 hours another train of same length started from A at a speed of 80 km/hr in the same direction as the first one. After how much time the second train will meet the first train?
A)5 hours B)3 hours
C)6 hours D)8 hours E)None of these

6)-8) Each of the questions given below consists of a statement and / or a question and two statements numbered I and II given below it. You have to decide whether the data provided in the statement(s) is / are sufficient to answer the given question. Read the both statements and
**Give answer (A)** if the data in Statement I alone are sufficient to answer the question, while the data in Statement II alone are not sufficient to answer the question.
**Give answer (B)** if the data in Statement II alone are sufficient to answer the question, while the data in Statement I alone are not sufficient to answer the question.
**Give answer (C)** if the data either in Statement I or in Statement II alone are sufficient to answer the question.
**Give answer (D)** if the data even in both Statements I and II together are not sufficient to answer the question.
**Give answer (E**) if the data in both Statements I and II together are necessary to answer the question.

6) What is the speed of the train whose length is 210 metres?
I. The train crosses another train (Howrah Express) of 300 metres length running in opposite direction in 10 seconds.
II. The train crosses another train (Howrah Express) running in the same direction at the speed of 60 km/hr in 30 seconds.

7) What is the length of a running train crossing another 180 metre long train running in the opposite direction?
I. he relative speed of the two trains was 150 kmph.
II.The trains took 9 seconds to cross each other.

8) What is the length of a running train?
I.The train crosses a man in 9 seconds.
II.The train crosses a 240 metre long platform in 24 seconds.

**Answers**

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|---|---|---|---|---|---|---|---|---|
| **Type I** | **1)15m/s** | **2)216Km/h** | - | - | - | | | |
| **Type II** | **1)C** | **2)B** | **3)B** | - | - | | | |
| **Type III** | **1)A** | **2)B** | **3)C** | **4)C** | **5)D** | | | |
| **Type IV** | **1)C** | **2)B** | **3)B** | **4)B** | **5)E** | | | |
| **Type V** | **1)C** | **2)B** | **3)C** | **4)C** | - | | | |
| **Type VI** | **1)B** | **2)B** | **3)C** | **4)C** | **5)C** | **6)E** | **7)E** | **8)E** |