MATHS

Speed and Distance Worksheet for MAH MCA CET 2025

For students preparing for MCA Entrance Exam.

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1. A truck covers a distance of 384 km at a certain speed. If the speed is decreased by 16 km/h, it will take 2 hours more to cover the same distance. 75% of its original speed (in km/h) is:
   A. 45
   B. 54
   C. 48
   D. 42

2. A takes 30 minutes more than B to cover a distance of 15 km at a certain speed. But if A doubles his speed, he takes one hour less than B to cover the same distance. What is the speed (in km/h) of B?
   A. 6
   B. 5
   C. $6\frac{1}{2}$
   D. $5\frac{1}{2}$

3. A and B are travelling towards each other from the points P and Q respectively. After crossing each other A and B take $6\frac{1}{8}$ hours 8 hours, respectively, to reach their destinations Q and P, respectively. If the speed of B is 16.8 km/h then the speed (in km/h) of A is:
   A. 20.8
   B. 19.8
   C. 19.2
   D. 20.4

4. The distance between two stations A and B is 800 km. A train X starts from point A and moves towards point B at a speed of 40 km/h and another train Y starts from point B and moves towards A at 60 km/h. How far from A will they cross each other?
   A. 380
   B. 320
   C. 300
   D. 360

5. A train travelling at 44 km/h crosses a man walking with a speed of 8 km/h, in the same direction, in 15 seconds. If the train crosses a woman coming from the opposite direction in 10 seconds, then what is the speed (In km/h) of the woman?
   A. 10.5
   B. 10
   C. 9
   D. 8.5

6. The speed of train A is 25 km/h more than the speed of train B. A takes 4 hours less time to travel a distance of 300 km than what train B takes to travel 250 km. What is the speed (In km/h) of A?
   A. 60
   B. 50
   C. 65
   D. 55

7. A train without stoppage travel with an average speed of 50 km/h and with stoppage, it travels with an average speed of 40 km/h. For how many minutes does the train stop on an average per hour?
   A. 12
   B. 13
   C. 14
   D. 15

8. Walking at 3/4 of his usual speed, a person reaches his office 18 minutes later than the usual time. His usual time in minutes is:

A. 60
B. 54
C. 72
D. 45

9. A starts walking at 4 kmph and after 4 hours, B starts cycling from the same point as that of A, in the same direction at 10 kmph. After how much distance from the starting point will B catch up with A (correct to two decimal places)?

A. 24.67 km
B. 26.67 km
C. 25.67 km
D. 23.67 km

10. A man travels a certain distance at 12km/h and returns to the starting point at 9km/h. The total time taken by him for the entire journey is $2\frac{1}{3}$ hours. The total distance (In km) covered by him is:

A. 25
B. 12
C. 24
D. 28

11. Two trains of the same length are running on parallel tracks in the same direction at 54 km/h and 42 km/h respectively. The faster train passes the other train in 63 seconds. What is the length (In metres) of each train?

A. 90
B. 81
C. 105
D. 210

12. Amit travelled from A to B at an average speed of 80 km/h. He travelled the first 75% of the distance in two-third of the time and the rest at a constant speed of x km/h. The value of x is:

A. 56
B. 60
C. 64
D. 54

13. A 360 m long running at a uniform speed, crosses a platform in 55 seconds and a man standing on the platform in 24 seconds. What is the length (in metre) of the platform?

A. 480
B. 445
C. 410
D. 465

14. Two trains of equal length travelling in opposite directions at 72 km/h and 108 km/h cross each other in 10 seconds. In how much time (in seconds) does the first train cross a platform of length 350 m?

A. 30
B. 32
C. 36
D. 34

15. The ratio between the speeds of two trains is 2:5. If the first train covers 350 km in 5 hours, then the speed (in km/h) of the second train is:

A. 175
B. 150
C. 180
D. 165

16. Given that the lengths of the paths of a ball thrown with different speeds by two boys are the same, if they take 0.6 seconds and 1 second respectively to cover the said length, what is the average speed of travel for the first throw, if the same for the second is 96 km/h?

A. 100 km/h
B. 150 km/h
C. 160 km/h
D. 200 km/h

17. The platform of a station 400 m long starts exactly where the last span of a bridge 1.2 km long ends. How long will a train 200 m long and travelling at the speed of 72 km/h take to cover the distance between the starting point of the span of the bridge and the far end of the platform?

A. 1.6 min
B. 1.5 min
C. 1.8 min
D. 1.2 min

18. A train goes from P to Q with a speed μ km/h, then from Q to R (QR = 2PQ) with a speed 3 μ km/h, and returns from R to P with a speed μ/2 km/h. What is the average speed (in km/h) of the train for the entire journey starting from P and back to P?

A. $\frac{18\mu}{23}$
B. $\frac{4\mu}{3}$
C. $\frac{16\mu}{23}$
D. $\frac{3\mu}{2}$

19. A person covers 40% of a distance with a speed of 60 km/h and the remaining with a speed of 40 km/h. What is his average speed for the whole journey in km/h?
A. $\frac{500}{11}$
B. $\frac{600}{13}$
C. $\frac{500}{13}$
D. $\frac{600}{11}$

20. The speed of a car increases by 2km/h after every one hour. If the distance travelled in the first one hour was 35 km, what was the total distance travelled in 12 hours?
A. 560 km
B. 650 km
C. 558 km
D. 552 km

21. Travelling at 60 km/h, a person reaches his destination in a certain time. He covers 60% of his journey in 2/5th of the time. At what speed (in km/h) should he travel to cover the remaining journey so that he reaches the destination right on time?
A. 40
B. 48
C. 42
D. 36

22. A train travelling at the speed of x km/h crossed a 200 m long platform in 30 seconds and overtook a man walking in the same direction at the speed of 6 km/h in 20 seconds. What is the value of x?
A. 50
B. 54
C. 56
D. 60

23. A and B started their journeys from X to Y and Y to X, respectively. After crossing each other, A and B completed the remaining parts of their journey in $6\frac{1}{8}$ h and 8h respectively. If the speed of B is 28 km/h, then the speed (in km/h) of A is:
A. 40
B. 42
C. 32
D. 36

24. Renu was sitting inside train A, which was travelling at 50 km/h. Another train, B, whose length was three times the length of A crossed her in the opposite direction in 15 seconds. If the speed of train B was 58 km/h, then the length of train A (in m) is:
A. 210
B. 180
C. 160
D. 150

25. Places A and B are 396 km apart. Train X leaves from A for B and train Y leaves from B for A at the same time on the same day on parallel tracks. Both trains meet after $5\frac{1}{2}$ hours. The speed of Y is 10 km/h more than that of X. What is the speed (in km/h) of Y?
A. 41
B. 54
C. 31
D. 56

26. A man starts from his house and travels at 30 km/h, he reaches his office late by 10 minutes, and travelling at 24 km/h, he reaches his office late by 18 minutes. The distance (in km) from his house to his office is:
A. 18
B. 16
C. 12
D. 20

Q27. To cover a distance of 416 km, a train A takes $2\frac{2}{3}$ hours more than train B. If the speed of A is doubled, it would take $1\frac{1}{3}$ hours less than B. What is the speed (in km/h) of train A?
A. 56
B. 54
C. 52
D. 65

Q28. A person covers 40% of the distance from A to B at 8 km/h, 40% of the remaining distance at 9 km/h and the rest at 12 km/h. His average speed (in km/h) for the journey is:

A. $9\frac{5}{8}$
B. $9\frac{2}{3}$
C. $9\frac{3}{8}$
D. $9\frac{1}{8}$

Q29. Walking at 60% of his usual speed, a man reaches his destination 1 hour 40 minutes late. His usual time (in hours) to reach the destination is:

A. $2\frac{1}{2}$
B. $2\frac{1}{4}$
C. $3\frac{1}{8}$
D. $3\frac{1}{4}$

Answer Key

1. C	2. A	3. C	4. B	5. B	6. B	7. A	8. B	9. B	10. C
11. C	12. B	13. D	14. A	15. A	16. C	17. B	18. A	19. B	20. D
21. A	22. D	23. C	24. D	25. A	26. B	27. C	28. C	29. A	