

SPEED APPLICATIONS DRAG CAR TIMES

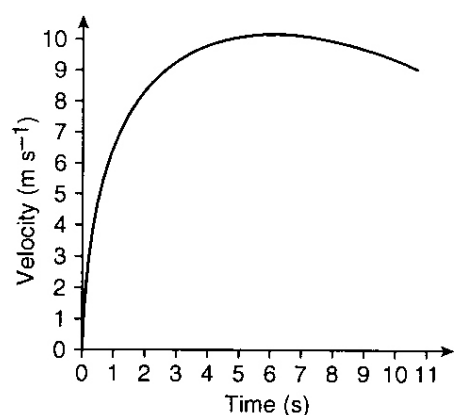
Q1. The maximum speed on many highways is 100 km/h. What is this speed in metres per second (m/s)?

TYPE OF DRAG CAR	NAME OF DRIVER	RACE DISTANCE	RACE TIME	SPEED (m/s)	SPEED (km/h)
Top fuel	I. Speed	304 m	3.567 s		
Top fuel	D. Monn	304 m	4.648 s		
Funny car	H.A. Haha	402 m	6.8 s		
Funny car	I.M.A. Joke	402 m	9.2 s		

Q2. Complete the table above to calculate the speeds of all cars in both m/s and km/h. Show all working in the spaces in the table.

Q3. How many times faster is I.Speed 's car than D.Monn's car?

Q4. The average preparation time to get each car to the starting line of the racetrack is 5 minutes 20 seconds. The average time to take each car away from the track after the race is 4 minutes 15 seconds. How long did it take to run all four races shown above?



Q5. The above graph shows the speed of a vehicle against time. Speed (also called velocity) is measured in metres per second (also called ms^{-1}).

Explain why this graph is NOT a graph showing a drag car race.

ANSWERS

Q1. $100000/3600 = 2.7$ m/s

Q2.

I.Speed – 85.23 m/s ; 306.81 km/h

D.Monn – 65.4 m/s ; 235.46 km/h

H.A.Haha – 59.12 m/s ; 212.82 km/h

I.M.A.Joke – 43.7 m/s ; 157.3 km/h

Q3. 1.3 times

Q4. 38 min 44.215 s

Q5. Maximum speed is only 36 km/h