

MOTORBIKE MATHS



SPEED, DISTANCE AND TIME

Because we are always in a rush and time is precious, one of the most common formulas that you will work with in real life involves speed, time and distance.



The formulae that we use to calculate distance, speed and time are:

$$\text{SPEED} = \frac{\text{distance}}{\text{time}}$$

$$\text{DISTANCE} = \text{speed} \times \text{time}$$

$$\text{TIME} = \frac{\text{distance}}{\text{speed}}$$



GRAB YOUR CRASH HELMET — HERE ARE SOME FUN SPEED-DISTANCE-TIME QUESTIONS

1 RACE TO THE BURGER JOINT

Liam and Jay decide to race to their favourite burger spot 15 km away. Liam rides at 60 km/h and Jay, being a show-off, goes at 75 km/h.

Q: Who gets there first and by how many minutes?

A:

3 LATE FOR SCHOOL AGAIN

Your school is 10 km away, and you left home 15 minutes late. You normally ride at 40 km/h, but today you push it to 60 km/h.

Q: How many minutes late or early will you be compared to your usual arrival time?

A:



2 ESCAPE THE RAIN

Ayanda is riding her bike at 50 km/h when it suddenly starts raining. There is a petrol station 5 km ahead.

Q: How long (in minutes) will it take her to get there?

A:



4 FUEL CHALLENGE

You ride 90 km in 1.5 hours on a long weekend trip.

Q: What's your average speed?

A:

5 THE DRAG RACE

Two bikers start a 400-metre drag race. One accelerates fast and maintains 100 km/h. The other takes off slower but catches up at 120 km/h.

Q: How many seconds does it take the faster biker to finish the race

A:

(Helpful tip: Convert speed from km/h to m/s)

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ANSWERS: 1. Jay gets there first by three minutes. 2. Six minutes. 3. You'll arrive five minutes earlier than usual. 4. 60 km/h. 5. The faster biker finishes in about 14.4 seconds