

27 HOW FAST ARE THE FASTEST?

Find out the world records for some sports like running, cycling, swimming, bobsledding, etc.

Work out the average speed in m/s and km/h each athlete must have travelled.



Example

An athlete runs 100 m in 9.58 seconds.

$$100\text{m} = 100 \div 1000 = 0.1 \text{ km}$$

$$9.58 \text{ seconds} = 9.58 \div 60 \div 60 \text{ hours} \\ = 0.002661111111 \text{ hours}$$

$$\text{Speed in km/h} = 0.1 \div 0.0026611111 \\ = \mathbf{37.58 \text{ km/h (2 decimal places)}}$$

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

If an athlete runs 100 m in 9.58 seconds,
then the speed in m/s is given by
 $\frac{100}{9.58} = 10.44 \text{ m/s (2 decimal places).}$



Make some comparisons and comments.
Present your work in an interesting way.

Notes

- 1 You will need to use a calculator.
- 2 Don't round your intermediate calculations or you will end up with an inaccurate answer.

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