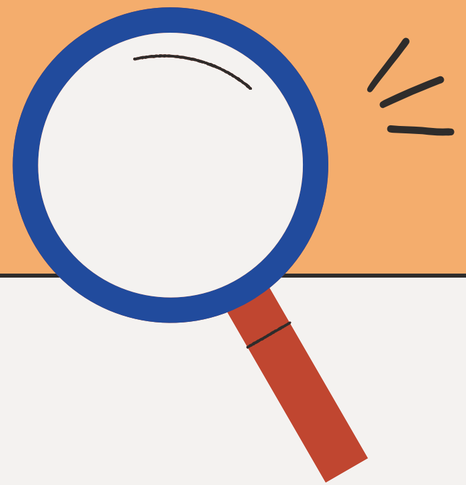
Speed, Time and Distance

Speed distance time is a formula that describes the connection between speed, distance, and time.

Learning Outcomes



- Learn about the speed distance time triangle including how they relate to each other
- How to calculate each one and how to solve problems involving them.

Speed= D/T

- **Examples of units of speed: metres per second (m/s), miles per hour(mph)**

Statement

Formula

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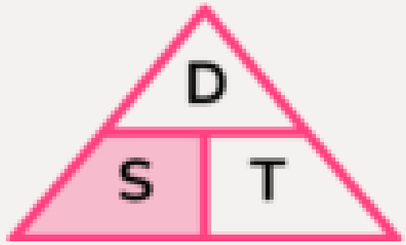

$$Speed = \frac{Distance}{Time}$$

Let's Try!

A truck drives 120 miles in 2 hours.

Calculate the average speed, in mph, of the car.

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Distance = 120 miles

Time = 2 hours

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Distance = 120 miles

Time = 2 hours

Speed = Distance/Time
Speed = 120 ÷ 2 = 60 mph

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- Examples of units of time: second (sec), minutes (mins) hours (hrs), days

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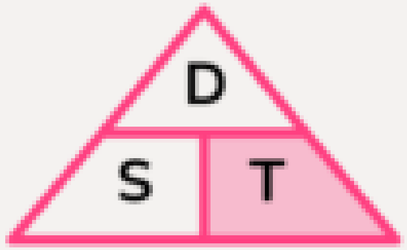

$$Time = \frac{Distance}{Speed}$$

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The average speed of a motorcycle is 20 km/h and the average speed of a cycle is 10 km/h.

When both have travelled 100 km what is the difference in the time taken?

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Time = distance ÷ speed
Time A = 100 ÷ 20 = 5 hours
Time B= 100 ÷ 10 = 10 hours

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Time = distance ÷ speed
Time A = 100 ÷ 20 = 5 hours
Time B= 100 ÷ 10 = 10 hours

Difference in time = 10 – 5 = 5 hours

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- **Examples of units of distance: mm, cm, m, km, miles**

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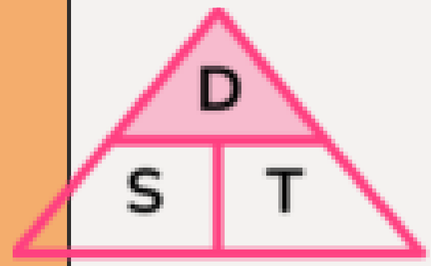

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What distance does a bike cover if it travels at a speed of 77 metres per second for 5050 seconds?

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What distance does a bike cover if it travels at a speed of 77 metres per second for 5050 seconds?

Distance=speed×time

D=7×50=350 meters

You did great!

See you next time.