

1 A car travelled 400m in 25 seconds. Calculate the speed of the car.

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2 A car travelled 6km in 2 minutes. Calculate the speed of the car.

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3 A train travels at a speed of  $35\text{ms}^{-1}$  for 50 seconds. Calculate the distance travelled.

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4 A person travels a distance of 4.5km while walking at a steady speed of  $3\text{ms}^{-1}$ .  
Calculate the time taken for this journey.

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5 Fill in the blank cell in each row of the table below.

Speed	Distance	Time
	900m	15s
$20\text{ms}^{-1}$		2 minutes
$25\text{ms}^{-1}$	2km	
	7.2km	1 hour
$13\text{ms}^{-1}$		3 minutes

5(2)

6 Explain how a car could have a deceleration.

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(10)

### Higher level

7 The speed of a car changes from  $59\text{ms}^{-1}$  to  $3\text{ms}^{-1}$  in 7 seconds. Calculate the acceleration of the car.

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(10)

**Ordinary level**

- 8 A student recorded  $12\text{ms}^{-1}$  as the speed of a car. After 6 seconds the student recorded  $72\text{ms}^{-1}$  as the speed of the car. Using this information calculate the acceleration of the car.

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**(10)**

**OR****9 Higher level**

What is the difference between speed and velocity?

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**(10)**

**10 Ordinary level**

A car started from rest and reached a speed of  $40\text{ms}^{-1}$  in 8 seconds. Calculate the acceleration of the car.

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**(10)**