M10 - 1.1 - Units

Convert 25 km/h in 2 m/s.

Convert 70 km/h in 2 m/s

Convert hundred and 25 km/h in metres per second

Convert 24 km/s in metres per second

Convert 68 m/h into metres per second

Convert 22 m/s and 2 km/hr

M10 - 1.2 - Average Speed

If a car travels for four hours at 60 km/h and one hour at 10 km/h what is the average speed

If a bicycle travels 22 m/s for 10 second and 7 m/s for nine seconds what is the average speed?

If a whale travels 100 km in three days and 2 km in four hours what is the average speed in meters per second?

M10 - 1.3 - Trains catch up time

If a car leaves Vancouver heading directly east travelling at 50 km/h and a truck leaves Vancouver four hours later heading east travelling at 100 km/h how long and how far will it take for the truck to catch up to the car?

Draw a table of values and graph both trains on the same graph and create an equation and perform substitution and solve.

If a bicycle leaves North Vancouver heading directly south at 20 km/h and a car leaves North Vancouver two days later heading south travelling at 80 km/h how long and how far will it take for the car to catch up to the bicycle?

M10 - 1.3 - Trains Meet Time Hmk

If the train leaves Whistler at 10 AM heading directly south towards Vancouver 120 km away at 20 km/h and another train leaves at 10 AM heading directly nor towards Whistler at 40 km/h what time and where do they meet?

Draw a table of values and graph both trains on the same graph and create an equation and perform substitution and solve.

If a bicycle leaves Vancouver heading directly east at 20 kilometres per hour towards Abbotsford 100 km away and another bicycle leaves Abbotsford heading directly east at 25 kilometres per hour what time and where did they meet?

M10 - 1.4 - Graph p vs.t Hmk

You walk 8 m in two seconds then sat for 2 seconds then ran 6 m in one second then ran backwards 20 m in four seconds:

Graph using a Table of Values. Draw a 1 dimensional picture. Find distance, displacement, speed and velocity from 0-2 seconds, 2-4 seconds, 4-5 seconds, 0-4 seconds, 0-9 seconds and 2-5 seconds.

M10 - 1.4 - Graph v vs.t Hmk

If a car accelerates to 8 m/s from rest in two seconds then drives at a constant velocity for three seconds then slows down to a stop in four seconds and continues backwards at a velocity of 1 m/s for two seconds.

Graph using a Table of Values. Find acceleration, distance, displacement from 0-2 seconds, 2-5 seconds, 5-9 seconds, 0-9 seconds.

M10 - $v = \frac{d}{t}$, "$v_f = v_i + at$" Hmk

What is the speed of a whale 120 who swam meters and eight seconds?

What is the velocity of a whale who swam 120 meters and eight seconds?

If you run 100 m north and then 50 meters south in 30 seconds. What is your distance travelled? What is your displacement? What is your speed? What is your velocity?

If you drive 600 m north and 800 m west in 50 seconds. What is your distance travelled? What is your displacement? What is your speed? What is your velocity?

If you are 20 m south and 10 m east in eight seconds. What is your distance travelled? What is your displacement? What is your speed? What is your velocity?

M10 - 1.5 - $v = \frac{d}{t}$, "$v_f = v_i + at$" Hmk

How long does it take to drive 100 km travelling at 10 km/h?

How long does it take to walk 20 m travelling at 2 m/s?

How long does it take to bicycle 80 m travelling at 6 m/s

How far can you drive at 75 km/h for three hours?

How far can you bicycle at 10 m/s for seven seconds?

How far can you walk at 5 m/s for 22 seconds?

M10 - 1.6 - $a = \frac{v}{t}$ Hmk

What is the acceleration of a bicycle that reaches 24 m/s in six seconds from rest?

What is the acceleration of the cheetah that reaches 18 m/s in two seconds?

What is the acceleration on a sleeping bear that wakes up and reaches 12 m/s in five seconds?

How long does it take a police car to reach 40 m/s accelerating at 8 m/s squared?

How long does it take a motorcycle to reach 45 m/s accelerating at 5 m/s squared?

How long does it take a rabbit to reach 8 m/s accelerating at 3 m/s squared?

How fast will a well get if it accelerates at 2 m/s squared for nine seconds?

How fast will a Lion and get if it accelerates four 4 m/s squared for nine seconds?

How fast will a narrow plane reach if it accelerates at 25 m/s squared for 12 seconds?

What is the acceleration of a rocket that accelerates from 200 m/s two 440 m/s in six seconds?

What is the acceleration of a police car that accelerates from 10 m/s to 18 m/s in three seconds?

What is the acceleration of a bicycle slowing down from 25 m/s two 10 m/s and three seconds?

M10 - 1.7 - $a = \frac{v}{t}, v_f = v_i + at$

What speed will it cheetah reach if she accelerates from rest at 4 m/s squared for five seconds?

What speed will a rabbit reach if it accelerates from rest at 2 m/s for four seconds?

How long will it take to accelerate to 8 m/s from rest at 2 m/s squared?

How long will it take to accelerate to 60 m/s from rest at 5 m/s squared?

How long will it take to accelerate from 8 m/s to 22 m/s accelerating at 2 m/s squared?

How long will it take to accelerate from 12 m/s to 60 m/s at 2 m/s squared?

How fast does a car reach accelerating at 5 m/s squared starting at 10 m/s for six seconds?

How fast is a car reach accelerating at 3 m/s squared starting at 5 m/s for six seconds?

What is the initial velocity of a car that reaches 30 m/s accelerating at 5 m/s squared for three seconds?

What is the initial velocity of a truck that reaches 45 m/s accelerating at 3 m/s squared for six seconds?

M10 - 1.7 - $a = \frac{v}{t}, v_f = v_i + at$ Notes

If a ball rolls up a gentle incline with an initial velocity of 10 m/s and after five seconds it is rolling down the hill with the velocity of 5 m/s, what is the balls acceleration. Ignore gravity