

Converting units - Revision

Converting metres per seconds to kilometres per hour

_____ metres = 1 kilometre

_____ minutes = 1 hour

_____ seconds = 1 minute

_____ seconds = 1 hour

1. Convert the following speeds measured in km/h to m/s

Eg. Convert 48 km/h to m/s

Kilometres to metres multiply by 1000 (x 1000)

Hour to minutes to seconds multiply by 60 then 60 again.(x 60 x 60)

$$48 \text{ km/hr} = \frac{48 \times 1000 \text{ m}}{1 \text{ hr} \times 60 \times 60} = \frac{48000}{3600} = 13.33 \text{ m/s}$$

a) 72 km/hr =

e) 240 km/hr =

b) 60 km/hr =

f) 1800km/hr =

c) 120 km/hr =

g) 5km/hr =

d) 40 km/hr =

h) 14km/hr =

2. Convert the following speeds measured in m/s to km/hr

Eg. Convert 12m/s to km/hr (we do the opposite to question 1)

Metres to kilometres divide by 1000 ($\div 1000$)

Seconds to minutes to hours divide by 60 then divide by 60 again ($\div 60 \div 60$)

$$12 \text{ m/s} = \frac{12 \div 1000}{1 \div 60 \div 60} = 43.2 \text{ km/hr}$$

a) 10m/s =

b) 14m/s =

c) 15m/s =

d) 48m/s =

e) 20 m/s =

f) 2 m/s =