

Lesson 2

GCSE Mathematics Kinematics

2.1 Big Number Arithmetic

Homework Exercise

Question 1 - *Do NOT use a calculator*

Calculate,

(i) 2000×300

(ii) 400×6000

(iii) 1300×300

(iv) 250×800

(v) 4000000×3

(vi) 5000^2

(vii) 6000×4000

(viii) 750×200

(ix) 450×3000

(x) 5500×110

Question 2 - *Do NOT use a calculator*

A Go-Kart moves at a constant speed of 20m/s for 30 minutes.

(i) How many seconds are in 30 minutes ?

(ii) How many metres does the Go-Kart travel ?

(iii) Write your part (ii) answer in km.

Question 3 - Do NOT use a calculator

A Mini moves at a constant speed of 25m/s for 50 minutes along the M54 motorway.

(i) How many seconds are in 50 minutes ?

(ii) How many metres does the Mini travel ?

(iii) Write your part (ii) answer in km.

Question 4 - Do NOT use a calculator

Calculate,

(i) $\frac{160}{40}$

(ii) $\frac{24000}{600}$

(iii) $\frac{7200}{3600}$

(iv) $\frac{44000}{110}$

(v) $\frac{250000}{50}$

(vi) $\frac{150000}{250}$

(vii) $\frac{8000}{16000}$

(viii) $\frac{12500}{200}$

(ix) $\frac{9000000}{300}$

(x) $\frac{3600000}{600}$

Question 5 - Do NOT use a calculator

A man drives 24 km at a steady speed for 20 minutes.

- (i) How many metres is 24 km ?

- (ii) How many seconds are in 20 minutes ?

- (iii) Find the man's speed in m/s.

Question 6 - Do NOT use a calculator

A missile covers 270 km at a steady speed in 15 minutes.

- (i) How many metres is 270 km ?

- (ii) How many seconds are in 15 minutes ?

- (iii) Find the missile's speed in m/s.

- (iv) The speed of sound in air is 340m/s.
Is the missile travelling faster than the speed of sound ?