



3055 BA SANGAM COLLEGE

PH: 6674003/9264117 E-mail: basangam@connect.com.fj



WORKSHEET 12 YEAR 09

SUBJECT: MATHEMATICS

NAME OF STUDENT: _____

STRAND	<i>SOCIAL MATHEMATICS</i>
SUB-STRAND	<i>Money, Ratio and Proportion</i>
Content Learning Outcome	➤ Introduce ratios, proportions, percentages and rates and to apply these in everyday situations

Rate

Objective:

- Define Rate
- Calculate the average of the different units given

Rate: it is comparing two quantities with different units in which the denominator is **1 unit**. **Example:** Speed (kilometers per hour), Price (dollars per kilogram), and wage (dollars per day)

Example 1

A car travels a distance of 600m in 10 seconds. Work out its average speed.

$$\begin{aligned}\text{Average Speed} &= \frac{\text{Distance}}{\text{Time}} \\ &= \frac{600\text{m}}{10\text{s}} \\ &= \frac{60\text{m}}{1\text{s}} \\ &= 60\text{m/s}\end{aligned}$$

Exercise 1

An employee of a security firm receives \$3 in an hour. He receives a weekly wages of \$120.00. How many hours does he work? (1 m)

Exercise 2

A car travels at a constant speed of 20m/s. Work out the distance travelled [in metres], by the car after

- a) 4 seconds

(2 marks)

b) 12 seconds

(2 marks)

c) 3 minutes

(2 marks)

d) 2 hours

(2 marks)

Exercise 3

A long distance runner ran 10, 000 metres in 28 minutes. Work out his speed in

(a) metres / min

(2 mark)

(b) metres /sec

(2mark)