



SEKOLAH BUKIT SION

1ST Sem, AY 2016 – 2017 ... where the abundance in life flows!

CHAPTER TEST: RATIO, RATE, PROPORTION, SPEED



NAME: _____

DATE: _____

CLASS: _____

MR EMMAN RECANEL

Answer all the questions. Show complete working. Write your final answer on space provided.

1. Express each of the following ratio in the simplest form:

(a) 45 : 240

Answer: [1]

(b) 4.9 : 34.3

Answer: [1]

(c) 45 minutes : $1\frac{3}{4}$ hours

Answer: [1]

(d) 20 cm : 3 m : 500 mm

Answer: [1]

2. Given that $a : b = 4 : 7$ and $b : c = 3 : 4$, find $a : b : c$.

Answer: [2]

3. Andrea, Belinda and Corrine shared a total of \$3230 among each other.

The ratio of Andrea's share to Corrine's share was 1 : 3.

Belinda's share and Corrine's shares are in the ratio of 6 : 5.

(a) Find the ratio of Andrea's share to Belinda's share to Corrine's share.

Answer: [1]

(b) Find the amount of money that Corrine received.

Answer: [2]

(c) How much **more** money did Belinda receive than Andrea.

Answer: [2]

4. (a) Jenny had \$500. Two days later, she spent \$140 on a gift.
Express in ratio the money she had left to the money she had at first.

Answer: [1]

- (b) The number of teachers in a school was increased from 100 in 2012 to 125 in 2013.
Find the ratio of the number of teachers in 2013 to the number of teachers in 2012.

Answer: [1]

5. (a) Mr Tan is paid \$180 for 8 hours of work. Find the rate that he is paid.

Answer: [1]

- (b) A printer prints 268 sheets of paper in 4 minutes.
How many sheets of paper can be printed by the same printer in 2 hours.

Answer: [1]

6. A worker is paid \$5 an hour during normal working hours.

- (a) If he works for 8 hours and starts working at 08 00 with 1 hour break,
(i) find the time he finishes his work,

Answer: [1]

- (ii) compute how much he will receive as a salary for a day.

Answer: [1]

- (b) He is paid \$7 an hour if **he works overtime**.

How much is he paid if he works from 08 30 to 21 00 which includes 3 hours of overtime and two 45-minute breaks for lunch and dinner?

Answer: [3]

7. How far can a car travel on 18 litres of petrol if it can travel 143 km on 11 litres?

Answer: [2]

8. (a) A car travelled 90 km in 2 hours. Find its speed in m/s.

Answer: [2]

(b) A toy car travelled 720 m in 2 minutes.
Find the toy car's speed in km/h.

Answer: [2]

9. 48 pencils are shared among Yin Yin, Ruby and Jane in the ratio 2 : 5 : 9.
Find the difference between Yin Yin's share and Jane's share.

Answer: [2]

10. The ratio of Kenny's body mass to that of his sister was 3 : 2.
Two years later, Kenny gained 5 kg while his sister gained 7 kg and the ratio their masses became 7 : 5. Find their original masses.

Answer: [3]

11. A bus travelled at a uniform speed of 50 km/h for the first 2 hours and 30 minutes.
It then covered the remaining distance of 96 km at a uniform speed of 64 km/h.
Find the average speed of the bus for the whole journey.

Answer: [4]

12. A motorist started his journey at 07 30 from his home to the post office which was 36 km away and travelled at an average speed of 48 km/h. He then stopped for a 45-minute rest. Afterwards, he continued to travel at an average speed of 54 km/h and arrived at a shopping mall 1 h 30 m later.

Find:

(a) the time he arrived at the post office,

Answer: [2]

(b) the distance between his home and the shopping mall

Answer: [2]

(c) the average speed for the whole trip.

Answer: [2]

13. The distance of 8 cm on a map represents an actual distance of 4 km.

(a) Find the scale of the map in the form 1 : n .

Answer: [1]

(b) If the actual distance between two schools is 1.5 km, find their distance on the map.

Answer: [1]

(c) If the area of a swimming pool is 4 cm² on the map, find the actual area of the pool in m².

Answer: [2]

(d) If the actual area of a pond is 0.64 km², find its area on a map in cm².

Answer: [2]