YEAR 8 MATHEMATICS WEEK 1 2020 (TERM 2)

Year: 8 **Date: Wednesday 20 May 2020**

STRAND: NUMBERS **TOPIC: Ratio**

LESSON OUTCOME: At the end of this lesson student(s) should be able to obtain equivalent ratios and simplify ratios.

Instructions: Hi dear Parents/Guardians and students - In this Lesson students are going to obtain equivalent ratios and simplify ratios and do the selected questions for **Exercise 1.7**.

[*Note that all the Quizzes/Test and or Assignment will be based on the selected questions for each exercise. These lessons are designed for* ***one hour per Lesson****.]*

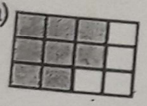
What to do: Do the following selected questions

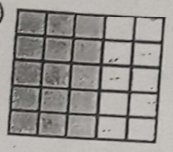
Exercise 1.7: Q3 (All); Q5 (a, e); Q9

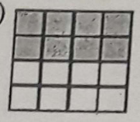
Solutions: Solutions will be available online via
https://www.facebook.com/centralschoolemergencyforum/posts/108720557434149

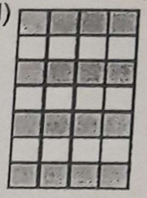
YEAR 8 MATHEMATICS WEEK 1 2020 (TERM 2)

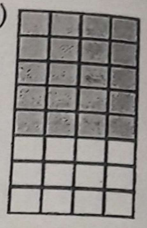
11. For each diagram, write the ratio, in its simplest form, of shaded squares to unshaded squares.

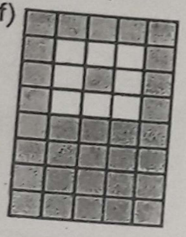
(a) 

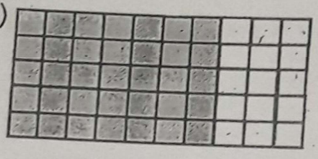
(b) 

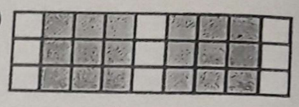
(c) 

(d) 

(e) 

(f) 

(g) 

(h) 

12. Set up tables to help you solve these problems.

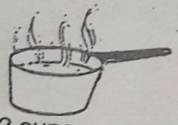
(a) There are seven days in one week. How many days are there in 2, 3, 5, 8 and 10 weeks?

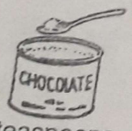
Weeks	1	2	3	5	8	10
Days	7					

(b) A bricklayer can lay 60 bricks in one hour. How many bricks can he lay in 2, 3, 4, 7, and 9 hours?

Hours	1	2	3	4	7	9
Bricks	60					

Exercise 1.7

1. 



To make hot chocolate for 2 people you need the quantities shown in the diagram. What quantities do you need for 8 people?

2. 

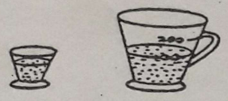
To make a particular shade of purple paint you need 3 parts red paint for 4 parts blue paint. The diagram shows an example of the quantities which can be used.

(a) How many litres of purple paint would you make if you used the quantities shown?

(b) If you had 16 litres of blue paint how many litres of red paint would you need to add to achieve the right shade?

(c) If you needed a total of 14 litres of paint for the job, what quantities of each paint would you need?

YEAR 8 MATHEMATICS WEEK 1 2020 (TERM 2)

3. 

The doctor prescribed a medicine for Andrew's cold which needs to be diluted in either water or fruit juice. For every 5 ml of medicine you add 100 ml of water or juice.

(a) How much liquid would Andrew need to drink to take a dosage of 5 ml of medicine?

(b) If Andrew must take a total of 25 ml of medicine each day, how much water/juice should be added in total?

(c) On the last day there is only 15 ml of medicine left. How much of the diluted mixture will he drink in total that day?

4. 

(a) Copy and complete the table below:

Longer length	Shorter length	Ratio	Comparison	Ratio in lowest form
yellow coil	red coil	360 : 12	The yellow coil is 30 times longer than the red coil	30 : 1
yellow coil	blue coil			
yellow coil	green coil			
yellow coil	gold coil			
brown coil	red coil			
brown coil	blue coil			
gold coil	ed coil			
gold coil	blue coil			

(b) To match each ratio below, write a sentence comparing two coils of rope.

(i) 120 : 15 The gold coil is eight times as long as the blue coil.

(ii) 120 : 12 .....

(iii) 240 : 15 .....

(iv) 360 : 15 .....

(v) 240 : 12 .....

(vi) 360 : 12 .....

(vii) 360 : 45 .....

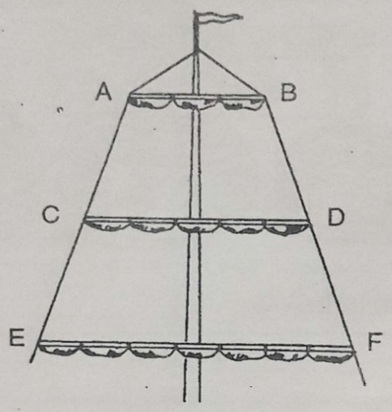
(viii) 360 : 120 .....

YEAR 8 MATHEMATICS WEEK 1 2020 (TERM 2)

5. Write each ratio in its simplest form.

(a) 5 cm : 50 cm
(b) 5 m : 5 km
(c) 30 g : 300 g
(d) 30 g : 3 kg
(e) 1 m : 40 cm
(f) 1l : 400 ml
(g) 100 ml : 2 l
(h) 8 cm : 10 mm
(i) 36 mins : 1 hour.

6. The diagram shows 3 sails folded and tied to their spars.
The sails are tied at equal intervals.



(a) If AB = 9 m, how long is each part of AB?
(b) If AB = 9 m, how long is CD?
(c) If AB = 9 m, how long is EF?
(d) If CD = 20 m, how long is
(i) AB (ii) EF?
(e) If EF = 49 m, how long is
(i) AB (ii) CD?

7. In a season a football team wins 10 matches at home and 5 matches away. What is the ratio of home wins to away wins?

8. A football pitch is 90 metres long and 60 metres broad. Find the ratio of its length to its breadth.

9. In a school there are 7 teachers for 210 children. What is the ratio of teachers to students?