



## DEPARTMENT OF MATHEMATICS

### GRADES 4 TO 12

TERM-1, ACADEMIC YEAR 2017 – 18

Worksheet No.	5	Topic	Ratio & Proportions		
Grade	7	Section	A - J	Date	/11/2017
Student Name					

#### 1. Compare these quantities as ratios:

- 25 mm ; 2 m
- 250 m ; 3 km
- 2 kg ; 300 g
- 3 kg ; 200 g
- 16 cm ; 4 km
- 1 hour ; 45 min
- 1.4 t ; 700 kg

#### 2. Simplify the following ratios:

- 35 : 70
- 90 : 105
- 18 : 27
- 28 : 70
- 64 : 38
- 400 : 50 : 250
- 108 : 24 : 84
- 160 : 40 : 120

#### 3. Solve the following word problems:

- Share AED 54 among Sara, Saad and Salim in the ratio 8 : 5 : 14.
- Divide 60 chocolates in the ratio 4 : 1 : 7



c) The angles of a triangle are in the ratio 3 : 5 : 7. Work out the area of each angle. [ Hint: Sum of all angles in a triangle =  $180^{\circ}$ ]

d) The angles of a quadrilateral are in the ratio 1 : 6 : 3 : 5. What are the angles? [ Hint: Sum of all angles in a quadrilateral =  $360^{\circ}$ ]

e) A piece of metal 5.1 m long must be divided into 3 equal pieces. How many centimeters is each equal part?

f) How many 200 ml glasses can be filled using a 2.2 l bottle of Coke?

g) 4 tins of tomatoes have a total mass of 1.5 kg. What is the mass, in grams, of one tin?

**4. Solve the following questions:**

a) The cost of 6 pens is \$8. Find the cost of 11 pens.

b) If 3 bags of apples have a mass of 36 Kg, What is the mass of 11 bags of apples?

c) Sara uses 3 tomatoes for every 1.5 liters of sauce she makes. How much sauce can she make using 14 tomatoes?

d) If 6 tickets cost \$36, What do 7 tickets cost?

**Answers:**

1.)

- a) 1 : 80
- b) 1 : 12
- c) 20 : 3
- d) 15 : 1
- e) 1 : 25000
- f) 4 : 3
- g) 2 : 1

2.)

- a) 1 : 2
- b) 6 : 7
- c) 2 : 3
- d) 2 : 5
- e) 32 : 19
- f) 8 : 1 : 5
- g) 9 : 2 : 7
- h) 4 : 1 : 3

3.)

- a) 16 : 10 : 28
- b) 20 : 5 : 35
- c)  $36^{\circ} : 60^{\circ} : 84^{\circ}$
- d)  $24^{\circ} : 144^{\circ} : 72^{\circ} : 120^{\circ}$
- e) 170 cm
- f) 11 glasses

4.)

- a) \$14.67
- b) 132 kg
- c) 7 liters
- d) \$ 42

