

**MATHEMATICS GRADE 8**

**Examiners: ………………….. Moderator: …………**

**Assignment Term 1 Date:………………….. Marks: 30**

..............................................................................................................................................................................

**INSTRUCTIONS**

**Read the following instructions carefully before answering the questions.**

1. This Assignment consists of 4 questions.

3. **Answer ALL questions on this task sheets.**

1. Write your name and surname as well as your class section in the spaces provided and hand in the whole answer sheet.
2. Clearly show all steps of calculations.
3. Answers only will not necessarily be awarded full marks.
4. An approved scientific calculator (non-programmable and non-graphical) may be used, unless stated otherwise.
5. If necessary, answers should be rounded off to TWO decimal places, unless stated

otherwise.

1. Write legibly, neatly and use blue ink.

Question 1: Write down all the factors of :

1. 15 [2]
2. 24 [4]

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Question 2:

Find the prime factors of 54 by using the Factor-Tree Method [4]

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Question 3:i) Find the LCM of 3 ;4 and 6 [4]

ii) Find the HCF of 15 ; 18 and 30 [5]

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Question 4:Divide R20 000 in the ratio 5:4:1 [3] \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Question 5: Thuli wants to buy TV for R8 500.A bank offers to loan her the money at an interest rate of 5%. She decides to pay the TV off in 3 years. Calculate the simple interest she will have to pay. Also calculate the total she will pay. [4]

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Question 6: A plane travels between Bloemfontein and Cape Town at a speed of 915 km/h. If the trip takes 2 hours, calculate the distance between the two cities. [3]

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Question 7: For the following give the answers as indicated in brackets:

1. Five dozen eggs cost R60. (R/dozen) (2)
2. A car travels 625km using 25L of fuel ( km/L) (2) [4]

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Formulae: SI = prt/100 ; speed = distance / time ; distance = speed x time



**MEMORANDUM GRADE 8 ASSIGNMENT FIRST TERM**

Q1: F(15) = 1,3,5,15

F(24) = 1,2,3,4,6,8,12,24

Q2:

|  |  |
| --- | --- |
| 2 | 54 |
| 3 | 27 |
| 3 | 9 |
| 3 | 3 |
|  | 1 |

Prime factors of 54 = 2x3x3x3

Q3: i) M(3) = 3,6,9,12,15,18.......... prime factors of 3= 3

M(4) = 4,8,12,16,20.............. prime factors of 4 = 2x2

M(6) = 6,12,18............. prime factors of 6= 2x3

THE LCM IS 12 LCM is : 2x2x3 = 12

ii) prime factors of 15 = 3 x 5

Prime factors of 18 = 2 x 3 x 3

Prime factors of 30 = 2 x 3 x 5 HCF is 3.

Q4: Total Ratio = 5+4+1 = 10

1 part = R20 000 ÷ 10 = R 2 000

Ratio is R10 000:R8 000:R2 000

Q5: SI = prt/100 =( R8500x5x3) ÷ 100 = R1 275

The total amount is: A = P + I = R8 500 + R1 275 = R9 775

Q6: distance = speed x time = 915km x 2 = 1830 km

Q7: a) R60/5dozen - R12/dozen ( divide by 5)

b) 625km using 25L – 12km/L ( divide by 25)