MATHEMATICAL SCIENCE: MMSC4

UNIT STANDARD: 7449

SPECIFIC OUTCOME: 2 & 3

LESSON 18

TOPIC: Critically analyze the use of mathematics in social relations.

BY THE END OF THE LESSON, YOU SHOULD BE ABLE TO:

- analytically apply mathematics skills to solve social issues
- to determine measures of central tendency and use them to make decisions
- to calculate rates of increase in various mathematical context
- to use ratios and proportions in order to calculate percentages.

INTRODUCTION

Corona virus has made negative impact in the lives of all people in South Africa. More so to the people who live below the poverty line, 18 million South African rely on social grant. South African government has had to make adjustment to their already stretched budget and increase the social grant payout for different beneficiaries in order to alleviate poverty that is brought by the pandemic during lockdown period.

Lockdown a state of isolation or restricted access instituted as a security and health measure.

Lockdown level 3 simply means some of the sectors (Automotive industries, schools at certain grades, and others) of economy will be allowed to operate but following strict regulations such as social distancing, disinfecting of buildings, sanitizing and wearing of mask etc.

ACTIVITY 1

President Cyril Ramaphosa previously announced R50 billion to relieve the desperately affected people by the coronavirus. Ramaphosa said a special Covid-19 social relief of distress grant of R350 a month for the next six months would be paid to individuals who were unemployed and did not receive social grants or UIF payment.

President Cyril Ramaphosa announced on Tuesday that the child support grant, which is currently R440, will be increased by R300 for May and by R500 from June to October.

In a statement, Sassa explains that from May R300 will be added to the grant, bringing the total to R740 per child.

From June until October 2020, this grant will go back to R440 per child but each caregiver will get an additional R500, regardless of the number of children they receive a grant for.

1.1 By what percentage has the child support grant increased for the month of May?

1.2 Thandi is an unemployed mother who rely on child social grant to support her three children. Determine the total amount she will receive in social grant for her three children for the month of May.

1.3 Calculate the total money Thandi will receive for each month starting from June to October 2020

1.4 Calculate the ratio of the total amount Thandi received in social grant for the month of May to June

1.5 Since Thandi is unemployed, will she be able to get social grant for the unemployed people? Give a reason for your answer.

1.6 Show by calculation, the total amount Thandi receives from May to October is R11 320,00

1.7 What is the average amount will Thandi receives every month?

ACTIVITY 2

The table below is the statistic about the number of infected people from the period starting 14 May 2020 to 31 May 2020.Study the table below and answer the questions that follow

Province	14-May	31-May
Eastern Cape	1569	3927
Free State	145	278
Gauteng	2135	4003
Kwa-Zulu Natal	1444	2445
Limpopo	55	177
Mpumalanga	67	121
North West	58	175
Northern Cape	31	69
Western Cape	7235	21382
Unknown	0	6
Total	12739	32683

2.1 For each province calculate the difference of the infections as at 14 May and 31 May 2020

2.2 Which province experienced the highest and least number of infected people between 14 May and 31 May 2020?

2.3 By what percentage has the province Question 2.2 experienced the highest and least number of infected people?

2.4 Name four province that experienced an increase of less than 50% in the period of 14 May and 31 May 2020

2.5 In your opinion do you think lockdown worked? Give your reason.

2.6 Determine the average increase of the infected people between the period mentioned in Question 2.4

2.7 As we are about to reopen community learning centers under level 3 lockdown, do you think it is a good idea considering your answer in Question 2.6?

2.8 What measures, should we as Learners and lecturers take to make sure, that we do not contract the corona virus? Name two.

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