YEAR 8 MATHEMATICS WEEK 9 2020 (TERM 1)

Year: 8   **Date: Monday 30 March 2020**

STRAND: NUMBERS   **TOPIC: PERCENTAGE (%)**

LESSON OUTCOME: At the end of this lesson student(s) should be able to calculate % of Amounts.

Instructions: Hi dear Parents/Guardians and students - In this Lesson students are going to read through the lesson example below and do the selected questions for **Exercise 3.21**. Students are encouraged to spend 10 minutes going through the example before attempting the selected questions.

[*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: Read through the Examples below and do the following selected questions

> **Exercise 3.21: Question 1 (Do: All)**
>
> **Question 3 (Do: f, g, h)**

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

Finding Percentages of Amounts

> To find a percentage of a number, first write the percentage as a fraction or decimal.

Examples:

1. Find 75% of 96

    "Of" means times.

    Fraction Method

    75% of 96

    $= \dfrac{75}{100} \times \dfrac{96}{1}$

    $= 72$

    Decimal Method

    75% of 96

    $= 0.75 \times 96$

    $= 72$

2. A tour bus carries 40 people. If 7.5% were Japanese and $72\frac{1}{2}\%$ were ni-Vanuatu, find out how many were Japanese and ni-Vanuatu.

    Japanese

    7.5% of 40

    $= \dfrac{7.5}{100} \times 40$

    $= 0.075 \times 40$

    $= 3$

    ni-Vanuatu

    $72\frac{1}{2}\%$ of 40

    $= \dfrac{72\frac{1}{2}}{100} \times 40$

    $= 0.725 \times 40$

    $= 29$

EXERCISE 3.21

1. Calculate:

    a. 30% of 200
    b. 25% of 40
    c. 35% of 80
    d. 20% of 130
    e. 3.5% of 100
    f. 22.5% of 50
    g. 2.4% of 50
    h. $4\frac{1}{2}\%$ of 70
    i. $12\frac{3}{4}\%$ of 1200
    j. 5.2% of 65

    k. 10% of 900
    l. 45% of 30
    m. 80% of 60
    n. 55% of 170
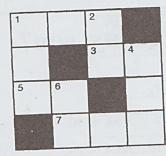   o. 2.4% of 200
    p. 62.5% of 90
    q. 3.9% of 20
    r. $2\frac{1}{4}\%$ of 80
    s. $11\frac{1}{2}\%$ of 3100
    t. 7.8% of 30

2. Copy and complete the following cross-number puzzle.

1		2	▩
	▩	3	4
5	6	▩	
▩	7		

Across
1. 64% of 350
3. 48% of 200
5. 92% of 100
7. 50% of 206

Down
1. 25% of 876
2. 20% of 245
4. 33% of 2100
6. 20% of 105

3. Read these questions carefully and then calculate the answers:

a. Josephine played 25 games of table tennis and won 60% of them. How many did she win?

b. In a group of 40 dancers, 20% were boys. How many boys were there?

c. A Leading Bank offers 7% interest per year for money invested. If I was to invest 12,000vt how much interest would I receive in one year?

d. A TV worth 45000vt is offered with a 10% discount for cash. Calculate the discount you would get.

e. An LP gas tank has a capacity of 40 litres. If it is 85% full, how many litres does it contain?

f. On a test worth 40 marks Angelo got 60%. How many questions did he get right?

g. In a group of 80 people, 95% have their own bank account. How many people don't have a bank account?

h. For the sentence 'Percentages are useful' find:
   i. The percentage of vowels
   ii. The percentage of consonants.