# LABASA SANGAM (SKM) COLLEGE

# YEAR 9 MATHEMATICS

# WORKSHEET -2021

**WEEK 1 (31/05/21 – 04/06/21)**

**<u>STRAND 1 - NUMBERS</u>**

1. Use the numbers listed below to answer the questions that follow.
   $\{$-1, -0.3, $-\dfrac{2}{3}$, 0, 7, $\dfrac{1}{7}$, 2$\}$

   (a)    Identify two rational numbers from the list.

   (b)    Arrange these numbers in descending order.

2. Calculate

   (a)    $2^4 - 4 \times (5 - 2)$

   (b)    $4^2 \div 2(3 - 5)$

3. Represent $\{\, 1 < x < 4 \,,\, x \in R \,\}$ on a number line.

4. Represent $\{\, -2 \le x < 2 \,,\, x \in I \,\}$ on a number line.

5. Convert

   (a)    $\dfrac{5}{4}$ to mixed number.

   (b)    $2\dfrac{1}{4}$ to improper fraction.

6. In a school of 500 students, $\frac{1}{5}$ of the students are taking Basic Technology. $\frac{3}{4}$ of the students who don't take Basic Technology are taking Vernacular subjects.

    a. How many students are taking Basic Technology?

    b. How many students are not taking Basic Technology?

    c. How many students are taking Vernacular subjects?
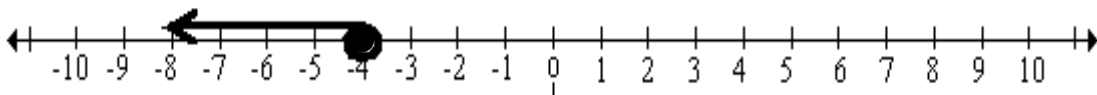
**WEEK 2 (07/06/21 – 11/06/21)**

**STRAND 2 ALGEBRA**

1. The expression $x^2 + x - 2$ is an example of a

    A. Monomial                 C. Trinomial

    B. Binomial                  D. Cubic

2. When fully factorized, one of the factors of $3x(x-5) - 2(x-5)$ is

    A. $3x$                      C. $(x-5)$

    B. $(3x^2 - 15x)$          D. $-2$

3. When simplified $(-4)^2 \times m$ is equal to

    A. 16m                    C. 8m

    B. -16m                 D. -8m

4. Factorise $3x^4 + 12x^3 - 9x^2$

5. What is the highest common factor in part (a) above?

6. (a) Simplify $\dfrac{20c^2d}{5c^2}$

    (b) Simplify $(2a^3b^2)^2$

7. Solve $-4 - y \le 2$

8. If $x = 2$, $y = 3$, and $z = 0.2$, evaluate the following:

    (a)    $2y + x^2$

    (b)    $\dfrac{xy}{z}$

9. Solve the equation $\dfrac{x}{3} + 7 = -8$

## WEEK 3 (14/06/21 – 18/06/21)

### STRAND 3 FUNCTIONS

1. For the diagram given below, what does the close circle at $-4$ indicate?



2. Draw the graph of the line parallel to $x$ – axis and passes through the point (0, -2)

3. Draw the graph of the inequality $\{(x, y): -5 < x \le 4\}$

4. Draw the graph of the inequality $\{(x, y): -2 \le y \le 3\}$

GOOD LUCK
STAY SAFE