

MATHEMATICS HOLIDAY ASSIGNMENT FOR SS 1

1. List out the series of steps involved in carrying out a factorisation operation
 - b. Factorise the following quadratic expressions
$$2h^2 + 5h + 3$$
Indicating each step taken
2. Find the roots of the quadratic equation
$$2x^2 + 11x + 14 = 0$$
 - b. Factorise completely
$$400 + 120r + 9r^2$$
3. What is percentage error?
 - b. A sack which weighs 60.5kg is recorded to have weighed 62.65kg. Find the percentage error
4. Solve the pairs of equations graphically
$$y = 4x^2 + 3x - 3$$
 for values of x from -3 to 3
5. A number is such that 4 times the number is 27 less than 7 times the number. Find the number.

MATHEMATICS HOLIDAY ASSIGNMENT FOR SS2

1. What is a logical statement?
 - b. Differentiate between simple and compound statements.
2. Solve the following inequalities and show the solution set in number line
 - i. $4x - 1 \leq 7$
3. In a circle, the angle subtended by a chord at the circumference is 32° . If the radius of the circle is 12cm, calculate the length of the chord
4. The angle of elevation of the top of a tree from a point on the ground 60m away from the foot of the tree is 78° . Find the height of the tree.
5. A triangle has two sides as 16cm and 4cm, respectively. If the included angle is 120° , calculate the third angle.

MATHEMATICS HOLIDAY ASSIGNMENT FOR SS 3

1. What is differentiation?
 - b. What is integration?
2. Integrate the following with respect to x
 - i. $\int (2x - 3)dx$
3. Evaluate $\int \frac{3x - 4}{(x - 3)^2}$
4. Simplify and solve the following
 - i. $(32n^5)^{1/5}$
5. Using the logarithm table, evaluate $\frac{13.95 \times 364}{(4.32)^2}$