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| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| week wee | lessn | Topic | Subtopics | Learning/Teaching  Objectives | Learning /Teaching activities | Learning/Teaching  Resources | Reference | Remarks |
| 1 | 1 | Cubes and cube roots | Cubes of numbers by multiplication and from table of cubes. | By the end of the lesson, the learner should be able to:   1. find the cube of a number by multiplication. 2. Find the cube of a number from the table of cubes. | # Finding the cubes of numbers by multiplication.  # Writing numbers in standard form.  # finding the cubes of numbers from the table of cubes. | # Mathematical tables  # models of a cube.  # cubical objects in real life situations. | -KLB BK2 Pg 1  -Advancing math bk2, pg 1  -Discovering math bk2 pg 1-3  -Explore math bk2, pg 4  -JKF bk2 pg 21 |  |
|  | 2 | Cubes and cube roots | Cubes of numbers by factor method. | By the end of the lesson, the learner should be able to:   1. find a cube root of a number by factor method. 2. Approximate a cube root of a number using a table of cubes. | # writing a number as a product of its prime factors in power form.  # finding cube roots of numbers by factor method.  # approximating cube roots of numbers from table of cubes. | # mathematical tables. | -KLB BK2,Pg3  -Advancing math bk2,pg4  -Discovering math bk2,pg 4  -Explore math bk2, pg 6&7  -JKF Bk2, pg 23 |  |
|  | 3 | Cubes and cube roots | Evaluation of cube root expressions and applications of cubes and cube roots to real life situations. | By the end of the lesson, the learner should be able to:   1. evaluate expressions involving cube roots. 2. Apply the knowledge of cubes and cube roots to carry out mixed operations correctly. | # evaluating expressions involving cubes and cube roots.  # applying the knowledge of cubes and cube roots in real life situations. | # mathematical tables. | -KLB BK2,pg 4  -Advancing math bk 2 pg 7  -Discovering math bk2 ,pg 5-6  -Explore math bk2 pg 9  -JKF BK2 ,pg 26 |  |
|  | 4  5 | Reciprocals | Reciprocals of numbers by division and from tables. | By the end of the lesson, the learner should be able to:   1. find reciprocals of numbers by division. 2. Find reciprocals of numbers from tables | # dividing 1 by numbers.  # writing of numbers in standard form.  # finding reciprocals of numbers from table of reciprocals. | # mathematical tables | -KLB bk2, pg 5  -Advancing math bk2, pg 8  -Discovering math bk2, pg 12-13  -JKF bk2, pg27 |  |
| week wee | lessn | Topic | Subtopics | Learning/Teaching  Objectives | Learning /Teaching activities | Learning/Teaching  Resources | Reference | Remarks |
|  | 6 | Reciprocals | Computation using reciprocals | By the end of the lesson, the learner should be able to:  use reciprocals in computation | # computing using reciprocals | # mathematical tables | -KLB bk2, pg6  -Advancing math bk2, pg 10  -Discovering math bk2, pg 14  -Explore math bk2, pg 13  -JKF bk2, pg 29 |  |
| 2 | 1 | Indices and logarithms | Indices and bases. | By the end of the lesson, the learner should be able to:   1. express a product of number in power form. 2. Define indices | # Expressing a product of in power form and vice versa.  # defining index and base  # expressing a number as the product of its prime factors in index form. | # chart illustrating indices. | -KLB bk2,pg7  -advancing math bk2,pg11  -Discovering math bk2,pg7  -Explore math bk2,pg15 |  |
|  | 2 | Indices and logarithms | Multiplication law of indices | By the end of the lesson the learner should be able to:  State the multiplication law of indices | # deriving the multiplication law of indices  # solving problems using multiplication law of indices | # chart illustrating laws of indices. | -Advancing math bk2,pg 13  -discovering math bk2, pg 7  -explore math bk2,pg15-16 |  |
|  | 3 | Indices and logarithms | Division law of indices | By the end of the lesson the learner should be able to;  State the division law of indices. | # deriving the division law of indices.  # solving problems using division law of indices. | # charts illustrating laws of indices. | -KLB bk2,pg 20-22  -advancing math bk2,pg14  -explore math bk2,pg 16-17 |  |
| week wee | lessn | Topic | Subtopics | Learning/Teaching  Objectives | Learning /Teaching activities | Learning/Teaching  Resources | Reference | Remarks |
|  | 4 | Indices and logarithms | Application of division law of indices and power of powers | By the end of the lesson the learner should be able to;   1. apply the division law of indices to derive zero index and negative indices. 2. Simplify indices involving power of powers | # explaining the zero index.  # explaining the negative indices  # simplifying indices involving power of powers | # charts illustrating laws of indices | -advancing math bk2, pg 15  -explore math bk2, pg 18  -discovering math bk2, pg 7-8 |  |
|  | 5 | Indices and logarithms | Application of division law of indices and power of powers | By the end of the lesson the learner should be able to;   1. apply the division law of indices to derive zero index and negative indices. 2. Simplify indices involving power of powers | # explaining the zero index.  # explaining the negative indices  # simplifying indices involving power of powers | # charts illustrating laws of indices | -advancing math bk2, pg 15  -explore math bk2, pg 18  -discovering math bk2, pg 7-8 |  |
|  | 6 | Indices and logarithms | Fractional indices | By the end of the lesson, the learner should be able to: apply the laws of indices to fractional indices. | # explaining the fractional indices  # evaluating problems with fractional indices using the laws of indices. | # chart illustrating laws of indices. | -KLB bk2,pg9-11  -advancing math bk2,pg17  -Discovering math bk2,pg9-11  -Explore math bk2,pg20-21 |  |
| 3 | 1 | Indices and logarithms | Simple equations involving indices. | By the end of the lesson, the learner should be able to solve simple equations involving indices. | # solving simple equation involving indices. | # chart illustrating index notation. | -KLB bk2,pg13  -advancing math bk2,pg 19  -Discovering math bk2,pg11 |  |
| week wee | lessn | Topic | Subtopics | Learning/Teaching  Objectives | Learning /Teaching activities | Learning/Teaching  Resources | Reference | Remarks |
|  | 2 | Indices and logarithms | Powers of 10 and common logarithms. | By the end of the lesson, the learner should be able to:   1. relate the powers of 10 to common logarithms. 2. Find the logarithm of numbers between 1 and 10 | # writing of numbers between 0 and 1 in standard form.  # relating index notation to logarithm notation  # relating powers of 10 to common logarithm.  # finding the common logarithm of numbers between 1 and 10 | # chart illustrating index and logarithm notation.  # mathematical tables.  # chart illustrating an extract of logarithm table. | -KLB bk2,pg14  -advancing math bk2,pg 22  -Discovering math bk2,pg15-16 |  |
|  | 3 | Indices and logarithms | Logarithms of numbers greater than 10 | By the end of the lesson, the learner should be able to find logarithms of numbers greater than 10 | # finding the logarithm of numbers greater than 10  # stating the characteristics and mantissa of a logarithm. | # mathematical tables | -KLB bk2,pg 15-16  -advancing math bk2,25  -Discovering math bk2,pg16 |  |
|  | 4 | Indices and logarithms | Logarithm of numbers between 0 and 1, antilogarithm and manipulating logarithms. | By the end of the lesson, the learner should be able to:   1. find the logarithm of numbers between 0 and 1 2. find the number given its logarithm. 3. Manipulate logarithms. | # finding the number given its logarithm.  # adding logarithms  # subtracting logarithms.  # multiplying logarithms by a scalar.  # finding logarithm of numbers between 0 and 1 | # mathematical tables | -KLB bk2,pg17-19  -advancing math bk2,pg25  -Discovering math bk2,pg16-17 |  |
|  | 5 | Indices and logarithms | Logarithm of numbers between 0 and 1, antilogarithm and manipulating logarithms. | By the end of the lesson, the learner should be able to:   1. find the logarithm of numbers between 0 and 1 2. find the number given its logarithm. | # finding the number given its logarithm.  # adding logarithms  # subtracting logarithms.  # multiplying logarithms by a scalar.  # finding logarithm of numbers between 0 and 1 | # mathematical tables | -KLB bk2,pg17-19  -advancing math bk2,pg25  -Discovering math bk2,pg16-17 |  |
| week wee | lessn | Topic | Subtopics | Learning/Teaching  Objectives | Learning /Teaching activities | Learning/Teaching  Resources | Reference | Remarks |
|  | 6 | Indices and logarithms | logarithms | By the end of the lesson, the learner should be able to manipulate logarithms. | # dividing the logarithm with a negative characteristic and by a scalar. | # chart illustrating division of logarithms. | -KLB bk2, pg 20  -advancing math bk2, pg30  -explore math bk2, pg 23-24 |  |
| 4 | 1 | Indices and logarithms | Application of common logarithms in multiplication and division of numbers | By the end of the lesson, the learner should be able to use the tables of logarithms and anti-logarithms in multiplication and division of numbers. | # multiplying and dividing numbers using logarithms. | # mathematical tables | -KLB bk2,pg20-22  -advancing math bk2,pg 30  -Discovering math bk2,pg18-19  -Explore math bk2,pg25-27 |  |
|  | 2 | Indices and logarithms | Application of common logarithms in finding roots and powers. | By the end of the lesson, the learner should be able to find powers and roots of numbers using logarithms. | # finding powers and roots of numbers using logarithms. |  | -KLB bk2,pg 24  -advancing math bk2,pg 31  -Discovering math bk2,pg21-22  -Explore math bk2,pg29-34 |  |
|  | 3 | Equations of straight lines | Gradient of a straight line | By the end of the lesson, the learner should be able to  (a)define gradient of a straight line.  (b) determine the gradient of a straight line passing through given points. | # defining the gradient of a line  # determining the gradient given two points. | # model of a flexible ladder. | -KLB bk2,pg 27-32  -advancing math bk2,pg34  -Discovering math bk2,pg23-24  -Explore math bk2,pg226-227  -JKF bk2,pg31 |  |
| week wee | lessn | Topic | Subtopics | Learning/Teaching  Objectives | Learning /Teaching activities | Learning/Teaching  Resources | Reference | Remarks |
|  | 4 | Equations of straight lines | The equation of a straight line. | By the end of the lesson, the learner should be able to:   1. the gradient and one point on the line 2. two points on the line | # determining equation of a line given the gradient and a point on the line.  # determining equation of a line given two points on the lines. | # square board  # graph books.  # a straight edge. | -KLB bk2,pg34  -advancing math bk2,pg 37  -Discovering math bk2,pg25-27  -Explore math bk2,pg228  -JKF bk2,pg33 |  |
|  | 5 | Equations of straight lines | The equation of a straight line. | By the end of the lesson, the learner should be able to:   1. the gradient and one point on the line 2. two points on the line | # determining equation of a line given the gradient and a point on the line.  # determining equation of a line given two points on the lines. | # square board  # graph books.  # a straight edge. | -KLB bk2,pg34  -advancing math bk2,pg 37  -Discovering math bk2,pg25-27  -Explore math bk2,pg228  -JKF bk2,pg33 |  |
|  | 6 | Equations of straight lines | Forms of equation of a straight line | By the end of the lesson, the learner should be able to:   1. find equation of a line in the form   ax +by = c   1. find equation of a line in the form   y = mx + c | # finding the equation of a line in form ax + by = c  # finding the equation of a line in the form  y = mx + c | # square board.  # graphs  # a chart illustrating a line cutting y-axis | -KLB bk2,pg34  -advancing math bk2,pg38  -Explore math bk2,pg238-239  -JKF bk2,pg34 |  |
| week wee | lessn | Topic | Subtopics | Learning/Teaching  Objectives | Learning /Teaching activities | Learning/Teaching  Resources | Reference | Remarks |
| 5 | 1 | Equations of straight lines | Double intercept form of equation of a straight line | By the end of the lesson, the learner should be able to:   1. determine equation of a line in the form   x + y = 1  a b  (b) rewrite the given equation of a line in the form  x + y = 1  a b  and determine the gradient. | # determining the equation of a line in the form  x + y = 1  a b  # rewriting the given equation of a line in the form  x + y = 1  a b  Hence determine the gradient | # square board  # graphs  # chart illustrating a line cutting x-axis and y-axis. | -KLB bk2,pg37  -advancing math bk2,pg40  -Discovering math bk2,pg27-28  -JKF bk2,pg35 |  |
|  | 2 | Equations of straight lines | Parallel lines | By the end of the lesson, the learner should be able to:   1. determine the relationship of the gradients of parallel lines 2. determine equation of a line passing through a given point and is parallel to a given line. | # determining the relationship of gradients of parallel lines.  # forming equation of a line given a point and a parallel line. | # square board  # graph papers.  # chart illustrating parallel lines. | -KLB bk2,pg 43-45  -advancing math bk2,pg42  -Discovering math bk2,pg29-30  -Explore math 4bk2,pg228  -JKF bk2,pg38 |  |
| week | Lesson | Topic | Subtopics | Learning/Teaching  Objectives | Learning /Teaching activities | Learning/Teaching  Resources | Reference | Remarks |
|  | 3 | Equations of straight lines | Perpendicular lines | By the end of the lesson, the learner should be able to:   1. determine the relationship of gradients of perpendicular lines. 2. Determine equation of line passing through a given point and perpendicular to a given line. | # determining the relationship of gradients of perpendicular lines.  # forming equation of a line given a point and a perpendicular line. |  | -KLB bk2,pg41-43  -advancing math bk2,pg42  -Discovering math bk2,pg30-31  -Explore math bk2,pg228-237  -JKF bk2,pg39-41 |  |
|  | 4-5 | Test on cubes and cube roots, reciprocals, indices, logarithms and equations of straight lines | Evaluation test. | By the end of the lesson the learner should be able to complete the test in the given time | # issuing of relevant materials.  # issuing of necessary instructions  # attempting of the test by the learners.  # supervising the learners closely to discourage collusion / copying  # collecting the answer scripts | # mathematical tables  # graph papers | Test papers |  |
|  | 6 | Reflection and congruence. | Line of symmetry | By the end of the lesson, the learner should be able to identify the line of symmetry. | # identifying lines of symmetry.  # stating properties of symmetrical shapes | # mirrors  # various symmetrical objects  # tracing and graph papers  # geometrical instruments. | -advancing math bk2,pg44  -Discovering math bk2,pg32-34  -JKF bk2,pg42 |  |
| week | Lesson | Topic | Subtopics | Learning/Teaching  Objectives | Learning /Teaching activities | Learning/Teaching  Resources | Reference | Remarks |
| 6 | 1 | Reflection and congruence | Planes of symmetry | By the end of the lesson, the learner should be able to identify planes of symmetry. | # identifying planes of symmetry. | # manila paper  # cutting of geometrical shapes.  # symmetrical objects like spherical oranges. | -advancing math bk2,pg44 |  |
|  | 2 | Reflection and congruence | Mirror lines, construction of objects, images and reflection as a transformation | By the end of the lesson, the learner should be able to:   1. state the properties of reflection as a transformation. 2. Use the properties in construction of objects and images. | # stating properties of reflection.  # constructing image given object and mirror line.  # constructing mirror line given object and image. | # geometrical instruments. | -KLB bk2,pg 50  -advancing math bk2,pg48  -Explore math bk2,pg119-120  -JKF bk2,pg45 |  |
|  | 3 | Reflection and congruence | Reflection in the Cartesian plane: on x-axis and y-axis | By the end of the lesson, the learner should be able to:   1. reflect an object on the x-axis. 2. Reflect an object on the y-axis. | # reflecting an object on the x-axis.  # reflecting and object on the y-axis. | # geometrical instruments.  # tracing papers.  # graph papers | -KLB bk2,pg50  -advancing math bk2,pg48  -Discovering math bk2,pg37-38 |  |
|  | 4 | Reflection and congruence | Reflection in the Cartesian plane: on y = ±x, y = k and  X = k. | By the end of the lesson, the learner should be able to:   1. reflect an object on lines   y = ±x,  (b) reflect an object on the line y = k  (c) reflect an object on the line x = k | # reflecting an object on the line y = x  # reflecting an object on the line y = -x  # reflecting an object on the line y = k  # reflecting an object on the line x = k | # geometrical instruments  # tracing papers  # graphs | -advancing math bk2,pg50  -Discovering -KLB bk2,pg 57-52  math bk2,pg40-42 |  |
| week | Lesson | Topic | Subtopics | Learning/Teaching  Objectives | Learning /Teaching activities | Learning/Teaching  Resources | Reference | Remarks |
|  | 5 | Reflection and congruence | Reflection in the Cartesian plane: on y = ±x, y = k and  X = k. | By the end of the lesson, the learner should be able to:   1. reflect an object on lines   y = ±x,  (b) reflect an object on the line y = k  (c) reflect an object on the line x = k | # reflecting an object on the line y = x  # reflecting an object on the line y = -x  # reflecting an object on the line y = k  # reflecting an object on the line x = k | # geometrical instruments  # tracing papers  # graphs | -advancing math bk2,pg50  -Discovering -KLB bk2,pg 57-52  math bk2,pg40 |  |
|  | 6 | Reflection and congruence | Geometrical deductions using reflection | By the end of the lesson, the learner should be able to make some geometrical deductions using reflection. | # making geometrical deductions using properties of reflection. | # geometrical instruments.  # tracing papers  # graphs | -KLB bk2,pg 56-60  -advancing math bk2,pg52  -Discovering math bk2,pg32  -JKF bk2,pg 51-52 |  |
| 7 | 1 | Reflection and congruence | Direct and indirect congruence | By the end of the lesson, the learner should be able to distinguish between direct and opposite congruence. | # distinguishing between direct and opposite congruence | # geometrical instruments | -KLB bk2,pg61-66  -advancing math bk2,pg55  -JKF bk2,pg53 |  |
|  | 2 | Reflection and congruence | Congruence test | By the end of the lesson, the learner should be able to identify congruent triangles | # identifying congruent triangles | # geometrical instruments. | -advancing math bk2,pg55 |  |
|  | 3 | Rotation | Rotational symmetry of plane figures | By the end of the lesson, the learner should be able to:   1. identify point of rotational symmetry. 2. State order of rotational symmetry 3. Identify axis of rotational symmetry of solids | # identifying points of rotational symmetry of plane figures  # stating order of rotational symmetry.  # identifying axes of rotational symmetry of solids. | # geometrical instruments.  # tracing papers.  # paper cuttings of various geometrical shapes | -KLB bk2,pg78-81  -advancing math bk2,pg58  -Discovering math bk2,pg49-50 |  |
| week | Lesson | Topic | Subtopics | Learning/Teaching  Objectives | Learning /Teaching activities | Learning/Teaching  Resources | Reference | Remarks |
|  | 4 | Rotation | Properties of rotation. | By the end of the lesson, the learner should be able to:   1. state properties of rotation as a transformation. 2. Deduce congruence from rotation | # stating properties of rotation as a transformation.  # deducing congruence from rotation. | # geometrical instruments | -advancing math bk2,pg62  -Discovering math bk2, pg45 |  |
|  | 5 | Rotation | Properties of rotation. | By the end of the lesson, the learner should be able to:   1. state properties of rotation as a transformation. 2. Deduce congruence from rotation | # stating properties of rotation as a transformation.  # deducing congruence from rotation. | # geometrical instruments | -advancing math bk2,pg62  -Discovering math bk2, p45 |  |
|  | 6 | Rotation | Locating image | By the end of the lesson, the learner should be able to locate image given the object ,centre and angle of rotation | # locating the image given object, centre and angle of rotation. | # geometrical instruments | -KLB bk2, pg72  -advancing math bk2,pg 62  -Discovering math bk2, pg33 |  |
| 8 | 1 | Rotation | Centre and angle of rotation | By the end of the lesson, the learner should be able to determine centre and angle of rotation. | # determining centre and angle of rotation given an object and the image. | # geometrical instruments. | -KLB bk2, pg73  -advancing math bk2,pg 63  -Discovering math bk2, pg46  -JKF bk2, pg67 |  |
|  | 2 | Rotation | Rotation in Cartesian plane | By the end of the lesson, the learner should be able to apply properties of rotation in the Cartesian plane. | # applying the properties of rotation in the Cartesian plane. | # geometrical instruments. | -KLB bk2, pg75  -advancing math bk2,pg 65  -Discovering math bk2, pg47-48  -JKF bk2, pg69 |  |
| week | Lesson | Topic | Subtopics | Learning/Teaching  Objectives | Learning /Teaching activities | Learning/Teaching  Resources | Reference | Remarks |
|  | 3 | Similarity and enlargement | Similar figures and their properties | By the end of the lesson, the learner should be able to:   1. identify similar figures. 2. Construct similar figures.. | # identifying similar figures.  # constructing similar plane figures | # models of similar figures.  # geometrical instruments. | -KLB bk2, pg87  -advancing math bk2,pg 73  -Discovering math bk2 pg 52-53 |  |
|  | 4 | Similarity and enlargement | Similar solids, their properties and properties of enlargement | By the end of the lesson, the learner should be able to:   1. identify similar solids. 2. State the properties of enlargement as a transformation. | # identifying similar solids.  # stating the properties of enlargement as a transformation. | # geometrical instruments. | -KLB bk2, pg97  -advancing math bk2,pg 76  -Discovering math bk2, pg52-54 |  |
|  | 5 | Similarity and enlargement | Similar solids, their properties and properties of enlargement | By the end of the lesson, the learner should be able to:   1. identify similar solids. 2. State the properties of enlargement as a transformation. | # identifying similar solids.  # stating the properties of enlargement as a transformation. | # geometrical instruments. | -KLB bk2, pg97  -advancing math bk2,pg 76  -Discovering math bk2, pg52-54 |  |
|  | 6 | Similarity and enlargement | Construction of images given objects | By the end of the lesson, the learner should be able to apply properties of enlargement to construct objects and images. | # constructing images given objects, centre of enlargement and scale factors. | # geometrical instruments | -advancing math bk2,pg78 |  |
| week | Lesson | Topic | Subtopics | Learning/Teaching  Objectives | Learning /Teaching activities | Learning/Teaching  Resources | Reference | Remarks |
| 9 | 1 | Similarity and enlargement | Construction of objects given images. | By the end of the lesson, the learner should be able to apply the properties of enlargement to construct objects and images. | # constructing objects given the images, centre of enlargement and scale factor. | # geometrical instruments | -advancing math bk2,pg78  -Discovering math bk2, pg57-58 |  |
|  | 2 | Similarity and enlargement | Locating the centre of enlargement and finding the scale factor. | By the end of the lesson, the learner should be able to locate the centre of enlargement and scale factor. | # locating the centre of enlargement and the scale factor given the object and the image. | # geometrical instruments. | -advancing math bk2,pg 78  -Discovering math bk2, pg59-61 |  |
|  | 3 | Similarity and enlargement | Fractional scale factor. | By the end of the lesson, the learner should be able to apply the properties of enlargement to construct objects and images involving fractional scale factors. | # constructing the objects and images involving fractional scale factor. | # geometrical instruments.  # graph papers. | -advancing math bk2,pg80 |  |
|  | 4 | Similarity and enlargement | Negative scale factor. | By the end of the lesson, the learner should be able to apply properties of enlargement to construct objects and images given negative scale factor. | # constructing images given objects, centre of enlargement and negative scale factor.  # constructing objects given image, centre of enlargement and negative scale factor.  # locating centre of enlargement and determining negative scale factor given object and image. | # geometrical instruments.  # graph papers. | -KLB bk2, pg104  -advancing math bk2,pg 81  -Discovering math bk2, pg59  -JKF bk2, pg90-91 |  |
| week wee | lessn | Topic | Subtopics | Learning/Teaching  Objectives | Learning /Teaching activities | Learning/Teaching  Resources | Reference | Remarks |
|  | 5 | Similarity and enlargement | Negative scale factor. | By the end of the lesson, the learner should be able to apply properties of enlargement to construct objects and images given negative scale factor. | # constructing images given objects, centre of enlargement and negative scale factor.  # constructing objects given image, centre of enlargement and negative scale factor.  # locating centre of enlargement and determining negative scale factor given object and image. | # geometrical instruments.  # graph papers. | -KLB bk2, pg104  -advancing math bk2,pg 81  -Discovering math bk2, pg59  -JKF bk2, pg90-91 |  |
|  | 6 | Similarity and enlargement | Enlargement in the Cartesian plane | By the end of the lesson, the learner should be able to describe enlargement in Cartesian plane. | # finding the image in the Cartesian plane given objects, centre of enlargement and scale factor.  # finding the object in the Cartesian plane given the image, centre of enlargement and the scale factor. | # geometrical instruments.  # graph papers. | -advancing math bk2,pg81  -Discovering math bk2, pg61-62 |  |
| 10 | 1 | Similarity and enlargement | Applying enlargement in the Cartesian plane. | By the end of the lesson, the learner should be able to apply enlargement in Cartesian plane. | # finding the centre of enlargement and scale factor given the object and image. | # geometrical instruments.  # graph papers | -advancing math bk2,pg81  -Discovering math bk2, pg66 |  |
| week wee | lessn | Topic | Subtopics | Learning/Teaching  Objectives | Learning /Teaching activities | Learning/Teaching  Resources | Reference | Remarks |
|  | 2 | Similarity and enlargement | Area scale factor. (A.S.F) | By the end of the lesson, the learner should be able to state the relationship between linear and area scale factors. | # stating the relationship between linear and area scale factor. | # maps  # photographs.  # charts illustrating similar figures. | -KLB bk2, pg106-107  -advancing math bk2,pg83  -JKF bk2, pg94 |  |
|  | 3 | Similarity and enlargement | Volume scale factor.(V.S.F) | By the end of the lesson, the learner should be able to state the relationship between linear and volume scale factor. | # stating the relationship between linear and volume scale factor. | # models of similar objects. | KLB bk2,pg 109-111  -advancing math bk2,pg 84  -JKF bk2 pg 96 |  |
|  | 4 & 5 | Test on reflection and congruence, rotation, similarity and enlargement |  | By the end of the lesson, the learner should be able to complete the test in the given time. | # issuing of necessary materials.  # issuing of necessary instructions  # attempting the test.  # collecting of answer scripts at the end of the test. | # geometrical instruments | -Test papers. |  |
|  | 6 | Revision |  | By the end of the lesson, the learner should be able to: |  |  |  |  |
| 11 | 1-6 | Revision | For End term | examinations |  |  |  |  |
| 12-13 |  | Revision | End of Term one ( 1 ) exams | | |  |  |  |
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**TERM 2**

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| **week wee** | **lessn** | **Topic** | **Subtopics** | **Learning/Teaching**  **Objectives** | **Learning /Teaching activities** | **Learning/Teaching**  **Resources** | **Reference** | **Remarks** |
| 1 | 1 | Pythagoras theorem | Pythagoras theorem | By the end of the lesson, the learner should be able to derive Pythagoras theorem. | # deriving Pythagoras theorem | # square cuttings.  # square board.  # tape measure.  # chart.  # illustrating tiled floor. | -KL B bk2,pg  -advancing math bk2,pg  -Discovering math bk2,pg  -Explore math bk2,pg  -JKF bk2,pg |  |
|  | 2 | Pythagoras theorem | Using Pythagoras theorem | By the end of the lesson, the learner should be able to solve problems using Pythagoras theorem. | # solving problems using Pythagoras theorem. | # chart illustrating Pythagoras theorem. | -KL B bk2,pg121  -advancing math bk2,pg 89  -Discovering math bk2,pg68  -Explore math bk2,pg111-112  -JKF bk2,pg99 |  |
|  | 3 | Pythagoras theorem | Pythagorean triples | By the end of the lesson, the learner should be able to derive Pythagorean numbers. | # deriving Pythagorean numbers ,(triples) | # chart illustrating Pythagorean triples. | -advancing math bk2,pg91  -Explore math bk2,pg113 |  |
|  | 4 | Pythagoras theorem | Application to real life situation | By the end of the lesson, the learner should be able to apply Pythagoras theorem to real life situation. | # solving problems in real life situations using Pythagoras theorem. | # calculators | -KL B bk2,pg121  -advancing math bk2,pg92  -Explore math bk2,pg114-115 |  |
|  | 5 | Trigonometry (1) | Tangent of an acute angle | By the end of the lesson, the learner should be able to define tangent. | # establishing the relationship between opposite and adjacent sides of a right angled triangle.  # expressing angles in degrees and minu | # cuttings of right angled triangles of various sizes and varying acute angles.  # geometrical instruments. | -KL B bk2,pg 123-124  -advancing math bk2,pg94  -Discovering math bk2,pg70-71  -JKF bk2,pg104 |  |
| **week wee** | **Lessn** | **Topic** | **Subtopics** | **Learning/Teaching**  **Objectives** | **Learning /Teaching activities** | **Learning/Teaching**  **Resources** | **Reference** | **Remarks** |
|  | 6 | Trigonometry (1) | Tangent of an acute angle | By the end of the lesson, the learner should be able to define tangent. | # establishing the relationship between opposite and adjacent sides of a right angled triangle.  # expressing angles in degrees and minutes | # cuttings of right angled triangles of various sizes and varying acute angles.  # geometrical instruments. | -KL B bk2,pg123-124  -advancing math bk2,pg94  -Discovering math bk2,pg70-71  -JKF bk2,pg104 |  |
| 2 | 1 | Trigonometry (1) | Tangent of an acute angle | By the end of the lesson, the learner should be able to read table of tangents. | # reading table of tangents ;finding tangents given angles  # reading table of tangents; finding angle given tangents. | # geometrical instruments.  # mathematical tables | -KL B bk2,pg126-127  -advancing math bk2,pg97  -Discovering math bk2,pg72  -JKF bk2,pg106 |  |
|  | 2 | Trigonometry (1) | Sine and cosine of an acute angle | By the end of the lesson, the learner should be able to define sine and cosine ratios of a given right angled triangle | # establishing the relationship between opposite and hypotenuse sides of a right angled triangle.  # establishing the relationship between adjacent and hypotenuse sides of a right angled triangle.  # defining sine and cosine ratios. | # cuttings of right angled triangles  # geometrical instruments | -advancing math bk2,pg98  -JKF bk2,pg109  -explore math bk2pg142-145 |  |
| **week wee** | **Lessn** | **Topic** | **Subtopics** | **Learning/Teaching**  **Objectives** | **Learning /Teaching activities** | **Learning/Teaching**  **Resources** | **Reference** | **Remarks** |
|  | 3 | Trigonometry (1) | Sine and cosine tables | By the end of the lesson, the learner should be able to   1. read tables of sine cosine ratios. 2. Use tables of trigonometric ratios. | # reading tables of sine and cosine ratios.  # using sine and cosine ratios to solve problems involving right angled triangles. | # mathematical tables. | -KLB bk2,pg138  -advancing math bk2,pg99  -Discovering math bk2,pg78  -Explore math bk2,pg146-147 |  |
|  | 4 | Trigonometry (1) | Trigonometric ratios | By the end of the lesson, the learner should be able to use the three trigonometric ratios to calculate lengths and angles. | # calculating lengths and angles using the three trigonometric ratios. | # mathematical tables. | -advancing math bk2,pg100  -Discovering math bk2,pg80 |  |
|  | 5 | Trigonometry (1) | Sines and cosines of complimentary angles, relationship between sine, cosine and tangent. | By the end of the lesson, the learner should be able to   1. establish relationship of sine and cosine of complimentary angles. 2. Use the relationship of complimentary angles. 3. Relate the three trigonometric ratios. | # establishing relationship between sine and cosine of complimentary angles .  # using the relationship of complimentary angles to solve for angles in a right angled triangle.  # relating the three trigonometric ratios. | # chart illustrating relationship of sine and cosine of complimentary angles. | -KLB bk2,pg145  -advancing math bk2,pg101  -Discovering math bk2,pg80  -Explore math bk2,pg151  -JKF bk2,pg112 |  |
|  | 6 | Trigonometry (1) | Sines and cosines of complimentary angles, relationship between sine, cosine and tangent. | By the end of the lesson, the learner should be able to   1. establish relationship of sine and cosine of complimentary angles. 2. Use the relationship of complimentary angles. 3. Relate the three trigonometric ratios. | # establishing relationship between sine and cosine of complimentary angles .  # using the relationship of complimentary angles to solve for angles in a right angled triangle.  # relating the three trigonometric ratios. | # chart illustrating relationship of sine and cosine of complimentary angles. | -KLB bk2,pg145  -advancing math bk2,pg101  -Discovering math bk2,pg80  -Explore math bk2,pg151  -JKF bk2,pg112 |  |
| **week wee** | **Lessn** | **Topic** | **Subtopics** | **Learning/Teaching**  **Objectives** | **Learning /Teaching activities** | **Learning/Teaching**  **Resources** | **Reference** | **Remarks** |
| 3 | 1 | Trigonometry (1) | Trigonometric ratios of special angles of 30º, 45º, 60º, and 90º | By the end of the lesson, the learner should be able to determine the trigonometric ratios of special angles of 30º, 45º, 60º, and 90º without using tables. | # determining trigonometric ratio of special angles of 30º, 45º, 60º, and 90º without using tables.  # solving right angled triangles with special angles without using tables. | # charts of right angled triangles illustrating special angles | -KLB bk2,pg146  -advancing math bk2,pg102  -Discovering math bk2,pg81  -JKF bk2,pg113-114 |  |
|  | 2 | Trigonometry (1) | Logarithms of sine, cosines and tangents. | By the end of the lesson, the learner should be able to read tables of logarithms of sines, cosines and tangents. | # reading tables of logarithms of sines, cosines and tangents. | # chart illustrating an extract of logarithms of sines, cosines and tangents.  # mathematical tables. | -KLB bk2,pg149  -advancing math bk2,pg105  -Discovering math bk2,pg83-84 |  |
|  | 3 | Trigonometry (1) | Logarithms of sine, cosines and tangents. | By the end of the lesson, the learner should be able to use logarithms of sines, cosines and tangents in calculations. | # using logarithms of sines, cosines and tangents in calculations. | # mathematical tables. | -KLB bk2, pg 149  -advancing math bk2,pg105  -Discovering math bk2,pg83-84 |  |
|  | 4 | Trigonometry (1) | Application of trigonometry to real life situation:  Bearing . | By the end of the lesson, the learner should be able to apply trigonometry to bearing. | # solving problems involving bearing using trigonometric ratios. | # mathematical tables | -advancing math bk2,pg106  -Discovering math bk2,pg84  -Explore math bk2,pg151-152 |  |
|  | 5 | Trigonometry (1) | Application of trigonometry to real life situation: angles of elevation and depression. | By the end of the lesson, the learner should be able to apply trigonometry to angles of elevation and depression and other problems in real life situation. | # solving problems involving angles of elevation and depression using trigonometry.  # solving other problems in real life situations using trigonometry. | # mathematical tables  # clinometer. | -advancing math bk2,pg106 |  |
| **week wee** | **Lessn** | **Topic** | **Subtopics** | **Learning/Teaching**  **Objectives** | **Learning /Teaching activities** | **Learning/Teaching**  **Resources** | **Reference** | **Remarks** |
|  | 6 | Trigonometry (1) | Application of trigonometry to real life situation: angles of elevation and depression. | By the end of the lesson, the learner should be able to apply trigonometry to angles of elevation and depression and other problems in real life situation. | # solving problems involving angles of elevation and depression using trigonometry.  # solving other problems in real life situations using trigonometry. | # mathematical tables  # clinometer. | -advancing math bk2,pg106 |  |
| 4 | 1 | Area of a triangle. | Area of a triangle using the formula  A= ½ ab sinC | By the end of the lesson, the learner should be able to derive the formulae for area of a triangle A= ½ ab sinC | # recalling area of a triangle given base and height.  # deriving the formula A= ½ ab sinC | # mathematical tables.  # charts showing triangle given two sides and an included angle. | -KLB bk2, pg 156  -advancing math bk2,pg110  -Discovering math bk2,pg85  -JKF bk2,pg126 |  |
|  | 2 | Area of a triangle. | Area of a triangle given two sides and an included angle | By the end of the lesson, the learner should be able to find the area of a triangle given two sides and an included angle. | # finding area of a triangle given two sides and an included angle. | # mathematical tables. | -KLB bk2, pg 156-157  -advancing math bk2,pg110 |  |
|  | 3 | Area of a triangle. | Area of a triangle using the formula  A=√s(s-a)(s-b)(s-c) | By the end of the lesson, the learner should be able to find area of a triangle given three sides. | # finding area of a triangle given three sides. | # mathematical tables  # charts illustrating a triangle given three sides. | -KLB bk2, pg 157  -advancing math bk2,pg111  -Discovering math bk2,pg86  -Explore math bk2 pg 270 |  |
|  | 4 | Area of a triangle. | Area of triangles | By the end of the lesson, the learner should be able to establish the relationship on area of triangles with same base and lying between parallel lines. | # Establishing the relationship on area of triangles with same base and lying between parallel lines. | # mathematical tables. | -KLB bk2, pg 149  -advancing math bk2,pg105  -Discovering math bk2,pg83-84 |  |
| **week wee** | **Lessn** | **Topic** | **Subtopics** | **Learning/Teaching**  **Objectives** | **Learning /Teaching activities** | **Learning/Teaching**  **Resources** | **Reference** | **Remarks** |
|  | 5 | Area of a triangle. | Application to real life situations | By the end of the lesson, the learner should be able to apply the area of triangle to real life situation. | # solving problems to real life situations using the calculation of area of a triangle. | # mathematical tables. | -advancing math bk2, pg 113 |  |
|  | 6 | Area of a triangle. | Application to real life situations | By the end of the lesson, the learner should be able to apply the area of triangle to real life situation. | # solving problems to real life situations using the calculation of area of a triangle. | # mathematical tables. | -advancing math bk2, pg 113 |  |
| 5 | 1 | Area of a triangle. | Area of parallelogram | By the end of the lesson, the learner should be able to find the area of parallelogram:   1. given the length of the two sides and an included angle. 2. Given the base and the height. 3. Given the diagonals. | # finding the areas of parallelograms:   1. given the length of the two sides and an included angle. 2. Given the base and the height.   Given the diagonals. | # mathematical tables. | -KLB bk2, pg160  -advancing math bk2, pg116  -explore math bk2, pg271  -JKF bk2, pg131 |  |
|  | 2 | Area of quadrilaterals and other polygons | Area of trapezium | By the end of the lesson, the learner should be able to find the area of trapezium. | # deriving the formula for area of trapezium.  # finding the area of trapezium. | # mathematical tables.  # charts illustrating trapezium. | -KLB bk2, pg162  -advancing math bk2, pg117  -explore math bk2, pg272  -JKF bk2, pg134 |  |
|  | 3 | Area of quadrilaterals and other polygons | Area of other regular polygons | By the end of the lesson, the learner should be able to find the area of other regular polygons. | # finding the area of regular polygons (i.e pentagon, hexagon, heptagon and octagon). | # charts illustrating various polygons.  # polygonal shapes. | -advancing math bk2, pg 119 |  |
|  | 4 | Area of quadrilaterals and other polygons | Area of irregular polygons. | By the end of the lesson, the learner should be able to find the area of irregular polygons. | # finding the area of irregular polygons. | # charts illustrating irregular polygons. | -advancing math bk2, pg120 |  |
| **week wee** | **Lessn** | **Topic** | **Subtopics** | **Learning/Teaching**  **Objectives** | **Learning /Teaching activities** | **Learning/Teaching**  **Resources** | **Reference** | **Remarks** |
|  | 5 | Area of part of a circle | Area of a sector | By the end of the lesson, the learner should be able to find area of a sector. | # Explaining parts of a circle.  # finding area of a sector. | # circular cutouts.  # charts illustrating sectors. | -KLB bk2, pg280-281  -advancing math bk2, pg122  -explore math bk2, pg279  -JKF bk2, pg139 |  |
|  | 6 | Area of part of a circle | Area of a sector | By the end of the lesson, the learner should be able to find area of a sector. | # Explaining parts of a circle.  # finding area of a sector. | # circular cutouts.  # charts illustrating sectors. | -KLB bk2, pg280-281  -advancing math bk2, pg122  -explore math bk2, pg279  -JKF bk2, pg139 |  |
| 6 | 1 | Area of part of a circle | Area of a segment. | By the end of the lesson, the learner should be able to find the area of a segment. | # finding area of minor segment.  # finding area of major segment. | # circular cutting  # charts illustrating segments. | -KLB bk2, pg169  -advancing math bk2, pg123  -discovering math bk2, pg95  -explore math bk2, pg280-281  -JKF bk2, pg144 |  |
|  | 2 | Area of part of a circle | Area of a common region between two circles when common chord is between two radii. | By the end of the lesson the learner should be able to find the area of a common region between two circles when common chord is between two radii. | # finding the area of a common region between two circles when common chord is between two radii. | # charts illustrating common region between two intersecting circles. | -KLB bk2, pg173  -advancing math bk2, pg124  -discovering math bk2, pg97-98  -explore math bk2, pg280-281  -JKF bk2, pg144 |  |
| **week wee** | **Lessn** | **Topic** | **Subtopics** | **Learning/Teaching**  **Objectives** | **Learning /Teaching activities** | **Learning/Teaching**  **Resources** | **Reference** | **Remarks** |
|  | 3 | Area of part of a circle | Area of common region between two circles when the radii are on one side of the common chord. | By the end of the lesson, the learner should be able to find the area of common region between two circles when the radii are on one side of the common chord. | # finding the area of common region between two intersecting circles when the radii are on one side of the common chord. | # charts illustrating common region between two intersecting circles. | -KLB bk2, pg173  -advancing math bk2, pg124  -discovering math bk2, pg97-98  -explore math bk2, pg280-281  -JKF bk2, pg146 |  |
|  | 4 | Surface area of solids | Surface area of prisms. | By the end of the lesson, the learner should be able to find the surface area of prism. | # finding surface area of prisms. | # models of prisms.  # charts illustrating prisms. | -KLB bk2, pg177  -advancing math bk2, pg127  -discovering math bk2, pg99  -explore math bk2, pg301  -JKF bk2, pg151 |  |
|  | 5 | Surface area of solids | Surface area of a pyramid | By the end of the lesson, the learner should be able to:   1. draw a net of pyramid. 2. Find the surface area of a pyramid. | # Drawing nets of pyramid.  # finding the surface area of pyramids. | # manila paper.  # models of pramids.  # scissors or razor blades. | -KLB bk2, pg178  -advancing math bk2, pg128  -discovering math bk2, pg100  -explore math bk2, pg301  -JKF bk2, pg152 |  |
|  | 6 | Surface area of solids | surface area of a pyramid | By the end of the lesson, the learner should be able to:   1. draw a net of pyramid. 2. Find the surface area of a pyramid. | # Drawing nets of pyramid.  # finding the surface area of pyramids. | # manila paper.  # models of pramids.  # scissors or razor blades. | -KLB bk2, pg178  -advancing math bk2, pg128  -discovering math bk2, pg100  -explore math bk2, pg301  -JKF bk2, pg152 |  |
| **week wee** | **Lessn** | **Topic** | **Subtopics** | **Learning/Teaching**  **Objectives** | **Learning /Teaching activities** | **Learning/Teaching**  **Resources** | **Reference** | **Remarks** |
| 7 | 1 | Surface area of solids | Surface area of a cone | By the end of the lesson, the learner should be able to find the surface area of a cone. | # forming a cone from a sector.  # drawing nets of sectors  # finding the surface area of an open cone.  # finding the surface area of a closed cone. | # cuttings of sectors of a circle.  # models of a cone. | -KLB bk2, pg180  -advancing math bk2, pg129  -discovering math bk2, pg102  -explore math bk2, pg301-302  -JKF bk2, pg153 |  |
|  | 2 | Surface area of solids | Surface area of frustrum of a cone | By the end of the lesson, the learner should be able to   1. form a frustrum from a cone. 2. Find the surface area of a frustrum. | # forming a frustrum from a cone.  # finding surface area of an open frustrum.  # finding surface area of frustrum open at one end.  # finding surface area of frustrum closed at both ends. | # paper models of cone.  # scissor and razor blade.  # models of frustrum of a cone. | -KLB bk2, pg181-182  -advancing math bk2, pg131  -discovering math bk2, pg103  -explore math bk2, pg311  -JKF bk2, pg156 |  |
|  | 3 | Surface area of solids | Surface area of a frustrum of a pyramid | By the end of the lesson, the learner should be able to   1. form a frustrum from a pyramid. 2. Find the surface area of a frustrum of a pyramid. | # forming a frustrum from a pyramid.  # finding the surface area of a frustrum of a pyramid. | # paper model of a pyramid.  # pair of scissor or blade.  # models of frustrum of a pyramid. | -KLB bk2, pg182  -advancing math bk2, pg131  -discovering math bk2, pg102-103 |  |
|  | 4 | Surface area of solids | Surface area of a sphere | By the end of the lesson, the learner should be able to find the surface area of a sphere. | # finding surface area of sphere.  # finding surface area of a hemisphere. | # models of prisms. | -KLB bk2, pg183-185  -advancing math bk2, pg132  -discovering math bk2, pg104-105 |  |
| **week wee** | **Lessn** | **Topic** | **Subtopics** | **Learning/Teaching**  **Objectives** | **Learning /Teaching activities** | **Learning/Teaching**  **Resources** | **Reference** | **Remarks** |
|  | 5 | Volume of solids | Volume of a prism. | By the end of the lesson, the learner should be able to :   1. identify uniform cross-section of a prism. 2. Find the volume of a prism. | # identifying uniform cross-section.  # finding the volume of a prism. | # models of prisms | -KLB bk2, pg 186  -advancing math bk2, pg138  -discovering math bk2, pg107-108  -explore math bk2, pg316  -JKF bk2, pg157-158 |  |
|  | 6 | Volume of solids | Volume of a prism. | By the end of the lesson, the learner should be able to :   1. identify uniform cross-section of a prism. 2. Find the volume of a prism. | # identifying uniform cross-section.  # finding the volume of a prism. | # models of prisms | -KLB bk2, pg186  -advancing math bk2, pg138  -discovering math bk2, pg107-108  -explore math bk2, pg316  -JKF bk2, pg157-158 |  |
| 8 | 1 | Volume of solids | Deriving formula for volume of a pyramid. | By the end of the lesson, the learner should be able to derive the formula for calculating the volume of a pyramid. | # forming a cube from three equal pyramids  # deriving formula for volume of a pyramid. | # models of pyramids. | -KLB bk2, pg189-190  -advancing math bk2, pg139 |  |
|  | 2 | Volume of solids | Finding volume of a pyramid. | By the end of the lesson, the learner should be able to find the volume of a pyramid. | # finding the volume of a pyramid. | # models of pyramids | -KLB bk2, pg190  -advancing math bk2, pg139  -discovering math bk2, pg111-112  -JKF bk2, pg161 |  |
|  | 3 | Volume of solids | Volume of a cone. | By the end of the lesson, the learner should be able to find the volume of a cone. | # finding the volume of a cone. | # models of cone. | -KLB bk2, pg 191  -advancing math bk2, pg140  -discovering math bk2, pg112 |  |
| **week wee** | **Lessn** | **Topic** | **Subtopics** | **Learning/Teaching**  **Objectives** | **Learning /Teaching activities** | **Learning/Teaching**  **Resources** | **Reference** | **Remarks** |
|  | 4 | Volume of solids | Volume of frustrum of a sphere. | By the end of the lesson, the learner should be able to   1. find the volume of a frustrum. 2. Find the volume of sphere. | # finding the volume of a frustrum.  # finding the volume of a sphere. | # models of frustrum.  # a ball | -KLB bk2, pg192-193  -advancing math bk2, pg141  -discovering math bk2, pg114  -JKF bk2, pg165 |  |
|  | 5 & 6 | Test on :Pythagoras theorem, trigonometry 1, area of triangle, area of quadrilaterals, area of part of a circle, surface area of solids, and volume of solids. |  |  |  |  | -KLB bk2, pg  -advancing math bk2, pg  -discovering math bk2, pg  -explore math bk2, pg  -JKF bk2, pg |  |
| 9 | 1 | Quadratic expressions and equations (1) | Expansion of algebraic expressions. | By the end of the lesson, the learner should be able to expand simple algebraic expressions. | # expanding simple algebraic expressions | # chalkboard illustrations | -KLB bk2, pg205  -advancing math bk2, pg144  -discovering math bk2, pg117  -explore math bk2, pg215  -JKF bk2, pg168 |  |
|  | 2 | Quadratic expressions and equations (1) | Binomial expansion | By the end of the lesson, the learner should be able to expand algebraic expressions that form quadratic expressions. | # Expanding expressions that lead to quadratic expressions. | # charts illustrating algebraic expression | -advancing math bk2, pg144 |  |
| **week wee** | **Lessn** | **Topic** | **Subtopics** | **Learning/Teaching**  **Objectives** | **Learning /Teaching activities** | **Learning/Teaching**  **Resources** | **Reference** | **Remarks** |
|  | 3 | Quadratic expressions and equations (1) | The quadratic identities:  (a-b)² = a²-2ab+b² | By the end of the lesson, the learner should be able to derive the first quadratic identity. | # deriving the quadratic identity. | # chart illustrating quadratic identities. | -KLB bk2, pg204  -advancing math bk2, pg145  -discovering math bk2, pg118  -explore math bk2, pg216-217 |  |
|  | 4 | Quadratic expressions and equations (1) | The quadratic identities  (a+b)² = a²+2ab+b²  (a+b)(a-b) = a²-b² | By the end of the lesson, the learner should be able to derive the other two quadratic identities. | # deriving the other two quadratic identities including the difference of two squares. | # chart illustrating quadratic identities. | -KLB bk2, pg204  -advancing math bk2, pg146 |  |
|  | 5 | Quadratic expressions and equations (1) | Factorization of quadratic expressions with x² coefficient equals to 1. | By the end of the lesson, the learner should be able to factorize quadratic expression with the coefficient of x² being 1 | # factorizing quadratic expressions with the coefficient of x² being 1. | # chalkboard illustrations. | -KLB bk2, pg205  -advancing math bk2, pg149  -discovering math bk2, pg120-121  -explore math bk2, pg218  -JKF bk2, pg171 |  |
|  | 6 | Quadratic expressions and equations (1) | Factorization of quadratic expressions with x² coefficient equals to 1. | By the end of the lesson, the learner should be able to factorize quadratic expression with the coefficient of x² being 1 | # factorizing quadratic expressions with the coefficient of x² being 1. | # chalkboard illustrations. | -KLB bk2, pg205  -advancing math bk2, pg149  -discovering math bk2, pg120-121  -explore math bk2, pg218  -JKF bk2, pg171 |  |
| 10 | 1 | Quadratic expressions and equations (1) | Factorization of quadratic expressions with coefficient of x² greater than 1 | By the end of the lesson, the learner should be able to factorize quadratic expressions with coefficient of x² greater than 1 | # factorizing quadratic expressions with coefficient of x² greater than 1 | # chalkboard illustrations. | -KLB bk2, pg206  -advancing math bk2, pg150  -explore math bk2, pg217 |  |
| **week wee** | **Lessn** | **Topic** | **Subtopics** | **Learning/Teaching**  **Objectives** | **Learning /Teaching activities** | **Learning/Teaching**  **Resources** | **Reference** | **Remarks** |
|  | 2 | Quadratic expressions and equations (1) | Factorization of quadratic expressions involving difference of two squares. | By the end of the lesson, the learner should be able to factorize expressions involving difference of two squares. | # factorizing expressions involving difference of two squares. | # chart illustrating quadratic identities. | -advancing math bk2, pg152  -discovering math bk2, pg121-122 |  |
|  | 3 | Quadratic expressions and equations (1) | Solutions of quadratic equations involving two terms by factor method. | By the end of the lesson, the learner should be able to solve equations involving two terms whose product is zero. | # solving equations involving two terms whose product is zero | # chalkboard illustrations. | -advancing math bk2, pg153  -discovering math bk2, pg122 |  |
|  | 4 | Quadratic expressions and equations (1) | Solutions of quadratic equations involving two terms by factor method. | By the end of the lesson, the learner should be able to solve quadratic equations by factor method | # solving quadratic equations by factor method. | # chalkboard illustrations. | -KLB bk2, pg205  -advancing math bk2 pg 154 |  |
|  | 5 | Quadratic expressions and equations (1) | Formulation of quadratic equations given roots. | By the end of the lesson, the learner should be able to form quadratic equations given their roots. | # forming quadratic equations given their roots. | # chalkboard illustrations | -KLB bk2, pg210  -advancing math bk2, pg155  -discovering math bk2, pg123-124  -JKF bk2, pg177 |  |
|  | 6 | Quadratic expressions and equations (1) | Formulation of quadratic equations given roots. | By the end of the lesson, the learner should be able to form quadratic equations given their roots. | # forming quadratic equations given their roots. | # chalkboard illustrations | -KLB bk2, pg210  -advancing math bk2, pg155  -discovering math bk2, pg123-124  -JKF bk2, pg177 |  |
| 11 | 1 | Quadratic expressions and equations (1) | Equations leading to quadratic equations | By the end of the lesson, the learner should be able to   1. rewrite given equations into quadratic form. 2. Solve the resultant quadratic equations. | # rewriting given equations into quadratic form.  # solving quadratic equations. | # chalkboard illustrations. | -KLB bk2, pg211  -advancing math bk2, pg157  -discovering math bk2, pg122  -explore math bk2, pg225 |  |
| **week wee** | **Lessn** | **Topic** | **Subtopics** | **Learning/Teaching**  **Objectives** | **Learning /Teaching activities** | **Learning/Teaching**  **Resources** | **Reference** | **Remarks** |
|  | 2 | Quadratic expressions and equations (1) | Word problems leading to quadratic equations. | By the end of the lesson, the learner should be able to   1. form quadratic equations from word problems. 2. Solve the resultant quadratic equations. | # forming quadratic equations from word problems.  # solving quadratic equations. | # chalkboard illustrations. | -KLB bk2, pg212  -advancing math bk2, pg157  -discovering math bk2, pg124  -explore math bk2, pg225  -JKF bk2, pg180 |  |
|  | 3 | Linear inequalities. | Inequalities on number line. | By the end of the lesson, the learner should be able to   1. identify inequality symbols. 2. Use inequality symbols. 3. Illustrate inequalities on the number line. | # identifying inequality symbols.  # using inequality symbols.  # illustrating inequalities on the number line. | # square board .  # graph papers.  # charts illustrating inequalities on a number line. | -KLB bk2, pg213  -advancing math bk2, pg160  -discovering math bk2, pg125  -JKF bk2, pg213 |  |
|  | 4 | Linear inequalities. | Simple and compound inequality statements. | By the end of the lesson, the learner should be able to illustrate simple and compound inequality statements on a number line. | # illustrating simple and compound inequality statements on a number line.  # forming inequalities from word statements. | # charts illustrating inequalities on a number line. | -KLB bk2, pg 214  -advancing math bk2, pg160  -discovering math bk2, pg125  -explore math bk2, pg231  -JKF bk2, pg183 |  |
|  | 5 | Linear inequalities. | Linear inequalities in one unknown. | By the end of the lesson, the learner should be able to solve linear inequality in one unknown. | # solving linear inequality in one unknown. | # Chalkboard illustrations. | -KLB bk2, pg215  -advancing math bk2, pg162  -discovering math bk2, pg128  -JKF bk2, pg183 |  |
|  | 6 | Linear inequalities. | Linear inequalities in one unknown. | By the end of the lesson, the learner should be able to solve linear inequality in one unknown. | # solving linear inequality in one unknown. | # Chalkboard illustrations. | -KLB bk2, pg215  -advancing math bk2, pg162 |  |
| **week wee** | **Lessn** | **Topic** | **Subtopics** | **Learning/Teaching**  **Objectives** | **Learning /Teaching activities** | **Learning/Teaching**  **Resources** | **Reference** | **Remarks** |
| 12 | 1 | Linear inequalities. | Simultaneous linear inequalities in one unknown. | By the end of the lesson, the learner should be able to solve simultaneous inequalities. | # solving simultaneous inequalities. | # chalkboard illustrations. | -KLB bk2, pg217  -advancing math bk2, pg163  -JKF bk2, pg184 |  |
|  | 2 | Linear inequalities. | Graphical representation of linear inequalities in one unknown. | By the end of the lesson, the learner should be able to represent the linear inequalities in one unknown graphically. | # representing the linear inequalities in one unknown graphically. | # square board.  # graph papers | -KLB bk2, pg219  -advancing math bk2, pg164  -discovering math bk2, pg130-131  -JKF bk2, pg191 |  |
|  | 3 | Linear inequalities. | Graphical representation of linear inequalities in two unknowns. | By the end of the lesson, the learner should be able to represent the linear inequalities in two unknowns graphically. | # representing the linear inequalities in two unknowns graphically. | # square board  # graph papers. | -KLB bk2, pg219  -advancing math bk2, pg165  -discovering math bk2, pg129-130  -explore math bk2, pg225 |  |
|  | 4 | Linear inequalities. | Graphical solution of linear inequalities in two unknown. | By the end of the lesson, the learner should be able to solve graphically the linear inequalities in two unknowns. | # solving graphically, linear inequalities in two unknowns. | # square board.  # graph papers. | -KLB bk2, pg221  -advancing math bk2, pg166  -discovering math bk2, pg130  -JKF bk2,pg 191 |  |
|  | 5 | Linear inequalities. | Simpler linear inequalities from inequality graphs. | By the end of the lesson, the learner should be able to form linear inequalities from inequality graphs. | # forming simple linear inequalities from inequality graphs. | # graphical illustration of inequalities. | -KLB bk2, pg224  -advancing math bk2, pg166 |  |
|  | 6 | Linear inequalities. | Simpler linear inequalities from inequality graphs. | By the end of the lesson, the learner should be able to form linear inequalities from inequality graphs. | # forming simple linear inequalities from inequality graphs. | # graphical illustration of inequalities. | -KLB bk2, pg224  -advancing math bk2, pg166 |  |
| **13** |  | **Revision** | **And End** | **Of Term Two** | **Examinations.** |  |  |  |

**TERM 3**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **week wee** | **lessn** | **Topic** | **Subtopics** | **Learning/Teaching**  **Objectives** | **Learning /Teaching activities** | **Learning/Teaching**  **Resources** | **Reference** | **Remarks** |
| 1 | 1 | Linear motion | Displacement and speed. | By the end of the lesson, the learner should be able to:   1. define displacement. 2. Distinguish between displacement and distance. 3. Define speed. 4. Relate distance traveled to speed. | # defining displacement.  # defining speed.  # relating distance to speed. | # chalkboard illustrations. | -KLB bk2,pg228  -Advancing math bk2, pg168  -Discovering math bk2,pg180  -Explore math bk2,pg320  -JKF bk2,pg197 |  |
|  | 2 | Linear motion | Determining velocity and acceleration. | By the end of the lesson, the learner should be able to:   1. distinguish between speed and velocity. 2. Determine velocity and acceleration. | # distinguishing between speed and velocity.  # determining velocity  # determining acceleration. | # chalkboard illustrations. | -KLB bk2,pg230  -Advancing math bk2, pg170  -Discovering math bk2,pg186  -JKF bk2,pg198 |  |
|  | 3 | Linear motion | Distance-time graph. | By the end of the lesson, the learner should be able to:   1. form table of values 2. plot and draw distance-time graph. 3. Interpret distance-time graphs. | # forming table of values given the relationship between distance and time.  # plotting and drawing of distance-time graph.  # interpreting distance-time graphs. | # linear motion tables.  # graph papers  # charts illustrating drawn graphs. | -KLB bk2,pg231  -Advancing math bk2, pg172  -Discovering math bk2,pg187  -JKF bk2,pg200 |  |
|  | 4 | Linear motion | Velocity-time graphs | By the end of the lesson, the learner should be able to:   1. plot and draw velocity-time graphs. 2. Interpret velocity-time graph. | # plotting and drawing of velocity-time graph.  # interpreting of velocity-time graph. | # linear motion tables.  # graph papers.  # charts illustrating velocity-time graph. | -KLB bk2,pg234  -Advancing math bk2, pg174  -Discovering math bk2,pg187-188  -JKF bk2,pg200 |  |
| **week wee** | **lessn** | **Topic** | **Subtopics** | **Learning/Teaching**  **Objectives** | **Learning /Teaching activities** | **Learning/Teaching**  **Resources** | **Reference** | **Remarks** |
|  | 5 | Linear motion | Relative speed | By the end of the lesson, the learner should be able to:   1. define relative speed. 2. Solve problems involving relative speed. | # defining relative speed.  # solving problems involving relative speed. | # chalkboard illustrations | -KLB bk2,pg238  -Advancing math bk2, pg177  -Discovering math bk2,pg190-191  -JKF bk2,pg202 |  |
|  | 6 | Linear motion | Relative speed | By the end of the lesson, the learner should be able to:   1. define relative speed. 2. Solve problems involving relative speed. | # defining relative speed.  # solving problems involving relative speed. | # chalkboard illustrations | -KLB bk2,pg238  -Advancing math bk2, pg177  -Discovering math bk2,pg190-191  -JKF bk2,pg202 |  |
| 2 | 1 | Statistics (1) | Definition of statistics collection of data. | By the end of the lesson, the learner should be able to:   1. define statistics. 2. Collect data. | # defining statistics .  # collecting data from the environment. | # data from the learners’ experience.  # data collected from the environment. | -KLB bk2,pg241  -Advancing math bk2, pg179  -Discovering math bk2,pg173  -JKF bk2,pg205 |  |
|  | 2 | Statistics (1) | Organization of data and frequency distribution table for ungrouped data. | By the end of the lesson, the learner should be able to:   1. organize data 2. draw a frequency distribution table. | # organizing the data collected.  # drawing frequency distribution tables for ungrouped data. | # chart illustrating frequency table for ungrouped data. | -KLB bk2,pg242  -Advancing math bk2, pg179  -Discovering math bk2,pg173  -Explore math bk2,pg338 |  |
|  | 3 | Statistics (1) | Frequency distribution table for grouped data | By the end of the lesson, the learner should be able to:   1. group data into reasonable classes. 2. Draw frequency distribution tables for grouped data. | # grouping of data  # drawing frequency distribution table for grouped data . | # chart illustrating frequency table for grouped data. | -KLB bk2,pg247-249  -Advancing math bk2, pg182  -Discovering math bk2,pg177 |  |
| **week wee** | **lessn** | **Topic** | **Subtopics** | **Learning/Teaching**  **Objectives** | **Learning /Teaching activities** | **Learning/Teaching**  **Resources** | **Reference** | **Remarks** |
|  | 4 | Statistics (1) | Representation of data using a pictogram  . | By the end of the lesson, the learner should be able to represent data using a pictogram. | # representing data using pictograms. | # chart illustrating pictogram. | -KLB bk2,pg253  -Advancing math bk2, pg184  -Discovering math bk2,pg160-161  -Explore math bk2,pg190-197  -JKF bk2,pg217 |  |
|  | 5 | Statistics (1) | Representation of data using pie chart and bar graphs . | By the end of the lesson, the learner should be able to:   1. represent data on a pie chart. 2. Represent data on a bar graph . | # drawing pie charts.  # drawing bar graphs. | # chart illustrating different formats of bar graphs. | -KLB bk2,pg254  -Advancing math bk2, pg184  -Discovering math bk2,pg166-167  -Explore math bk2,pg190-197  -JKF bk2,pg217 |  |
|  | 6 | Statistics (1) | Representation of data using pie chart and bar graphs . | By the end of the lesson, the learner should be able to:   1. represent data on a pie chart. 2. Represent data on a bar graph . | # drawing pie charts.  # drawing bar graphs. | # chart illustrating different formats of bar graphs. | -KLB bk2,pg254  -Advancing math bk2, pg184  -Discovering math bk2,pg166-167  -Explore math bk2,pg190-197  -JKF bk2,pg217 |  |
| 3 | 1 | Statistics (1) | Representation of data using histograms and frequency polygons. | By the end of the lesson, the learner should be able to:   1. represent data on a histogram 2. draw frequency polygon. | # representing grouped data with equal cross sizes on a histogram  # representing grouped data with unequal class sizes on a histogram.  # drawing a polygon | # chart illustrating histogram.  # chart illustrating a frequency polygon. | -KLB bk2,pg256  -Advancing math bk2, pg187  -Discovering math bk2,pg168-169  -Explore math bk2,pg202-203 |  |
| **week wee** | **lessn** | **Topic** | **Subtopics** | **Learning/Teaching**  **Objectives** | **Learning /Teaching activities** | **Learning/Teaching**  **Resources** | **Reference** | **Remarks** |
|  | 2 | Statistics (1) | Representation of data using line graphs. | By the end of the lesson, the learner should be able to represent data using a line graph. | # drawing a line graph to represent data. | # chart illustrating line graph. | -Advancing math bk2, pg190  -Discovering math bk2,pg164-165  -Explore math bk2,pg200  -JKF bk2,pg216 |  |
|  | 3 | Statistics (1) | Measures of central tendency mean for ungrouped data. | By the end of the lesson, the learner should be able to calculate the mean of ungrouped data. | # calculating the mean for grouped data | # chalkboard illustrations. | -KLB bk2,pg243  -Advancing math bk2, pg192  -Discovering math bk2,pg173  -Explore math bk2,pg337 |  |
|  | 4 | Statistics (1) | Measures of central tendency : mode and median for ungrouped data. | By the end of the lesson, the learner should be able to:   1. find the mode of ungrouped data; 2. calculate the median for ungrouped data. | # finding the mode for ungrouped data.  # calculating the median for ungrouped data. | # chalkboard illustrations . | -KLB bk2,pg244  -Advancing math bk2, pg193  -Discovering math bk2,pg174  -Explore math bk2,pg338  -JKF bk2,pg210 |  |
|  | 5 | Statistics (1) | Measures of central tendency: mean for grouped data . | By the end of the lesson, the learner should be able to calculate the mean for grouped data. | # calculating the mean for grouped data. | # chalkboard illustrations | -KLB bk2,pg249  -Advancing math bk2, pg195  -Discovering math bk2,pg177  -Explore math bk2,pg346 |  |
|  | 6 | Statistics (1) | Measures of central tendency: mean for grouped data. | By the end of the lesson, the learner should be able to calculate the mean for grouped data. | # calculating the mean for grouped data. | # chalkboard illustrations | -KLB bk2,pg249  -Advancing math bk2, pg195 |  |
| **week wee** | **lessn** | **Topic** | **Subtopics** | **Learning/Teaching**  **Objectives** | **Learning /Teaching activities** | **Learning/Teaching**  **Resources** | **Reference** | **Remarks** |
| 4 | 1 | Statistics (1) | Measures of central tendency : median for grouped data | By the end of the lesson, the learner should be able to calculate the median for grouped data. | # calculating the median of grouped data. | # chalkboard illustrations | -KLB bk2,pg248  -Advancing math bk2, pg195  -Discovering math bk2,pg178  -JKF bk2,pg214 |  |
|  | 2 | Statistics (1) | Measures of central tendency: mode for grouped data. | By the end of the lesson, the learner should be able to :   1. state the modal class for grouped data. 2. Estimate the mode for grouped data from the histogram. | # stating the modal class for grouped data. | # chalkboard illustrations | -KLB bk2,pg248  -Advancing math bk2, pg195 |  |
|  | 3 | Angle properties of a circle. | Arc, chord, segment | By the end of the lesson, the learner should be able to :   1. identify an arc, chord and a segment. 2. Identify angles subtended on the same segment. | # identifying parts of a circle.  # identifying angles subtended on the segment. | # charts illustrating sectors and segments. | -KLB bk2,pg264  -Advancing math bk2, pg199  -Discovering math bk2, pg136  -Explore math bk2, pg259  -JKF bk2, pg222 |  |
|  | 4 | Angle properties of a circle. | Relating angles in the same segment. | By the end of the lesson, the learner should be able to relate angles subtended by an arc on the circumference. | # relating angles subtended by the same arc on the circumference. | # charts illustrating angles in the same segment. | -KLB bk2,pg265  -Advancing math bk2, pg199  -Discovering math bk2, pg136  -Explore math bk2, pg259 |  |
|  | 5 | Angle properties of a circle. | Angles in the same segment | By the end of the lesson, the learner should be able to compute the angles in the same segment. | # computing the angles in the same segment. | # charts illustrating angles in the same segment. | -KLB bk2,pg273  -Advancing math bk2, pg199 |  |
| **week wee** | **lessn** | **Topic** | **Subtopics** | **Learning/Teaching**  **Objectives** | **Learning /Teaching activities** | **Learning/Teaching**  **Resources** | **Reference** | **Remarks** |
|  | 6 | Angle properties of a circle. | Angles in the same segment | By the end of the lesson, the learner should be able to compute the angles subtended in the same segment. | # computing the angles in the same segment. | # charts illustrating angles in the same segment. | -KLB bk2,pg273  -Advancing math bk2, pg199  -Explore math bk2, pg261-262 |  |
| 5 | 1 | Angle properties of a circle. | Relationship between angles subtended at the centre and angles subtended on the circumference of a circle by the same arc | By the end of the lesson, the learner should be able to establish the relationship between angles subtended at the centre and angles subtended on the circumference of a circle by the same arc | # establishing the relationship between angles subtended at the centre and angles subtended on the circumference of a circle by the same arc | # charts illustrating angles at the centre and on the circumference . | -Advancing math bk2, pg202  -Discovering math bk2, pg137-138  -JKF bk2, pg224 |  |
|  | 2 | Angle properties of a circle. | Solving problems on angles subtended at the centre and angles subtended on the circumference of a circle by the same arc. | By the end of the lesson, the learner should be able to :   1. solve problems on angles at the centre and on the circumference . 2. state the angle in the semicircle. | # solving problems on angles subtended at the centre and on the circumference  # stating the angle in the semi-circle. | # chalkboard illustrations | -Advancing math bk2, pg201  -Explore math bk2, pg263 |  |
|  | 3 | Angle properties of a circle. | Angle properties of a cyclic quadrilateral | By the end of the lesson, the learner should be able to establish the angle properties of a cyclic quadrilateral. | # establishing the angle properties of a cyclic quadrilateral | # chart illustrating a cyclic quadrilateral. | -KLB bk2,pg278  -Advancing math bk2, pg204  -Discovering math bk2, pg140-141  -Explore math bk2, pg263-264  -JKF bk2, pg229 |  |
|  | 4 | Angle properties of a circle. | Finding angles of a cyclic quadrilateral. | By the end of the lesson, the learner should be able to find angles of a cyclic quadrilateral | # finding angles of a cyclic quadrilateral. | # chalkboard illustrations. | -KLB bk2,pg280-283  -Advancing math b |  |
| **week wee** | **lessn** | **Topic** | **Subtopics** | **Learning/Teaching**  **Objectives** | **Learning /Teaching activities** | **Learning/Teaching**  **Resources** | **Reference** | **Remarks** |
|  | 5 | Angle properties of a circle. | Finding angles of a cyclic quadrilateral. | By the end of the lesson, the learner should be able to find angles of a cyclic quadrilateral | # finding angles of a cyclic quadrilateral. | # chalkboard illustrations. | -KLB bk2,pg280-283  -Advancing math bk2, pg204  -Discovering math bk2, pg141-143  -Explore math bk2, pg265-266  -JKF bk2, pg230 |  |
|  | 6 | Test | On statistics | And angle properties |  |  |  |  |
| 6 | 1 | Vectors | Vector and scalar quantities | By the end of the lesson, the learner should be able to define vector and scalar quantities. | # defining vector quantities.  # defining scalar quantities. | # geometrical instruments. | -KLB bk2,pg284  -Advancing math bk2, pg206  -Discovering math bk2, pg145  -Explore math bk2, pg100  -JKF bk2, pg234 |  |
|  | 2 | Vectors | Vector notation and equivalent vectors | By the end of the lesson, the learner should be able to   1. use vector notation. 2. Identify equivalent vectors. | # using vector notation.  # identifying equivalent vectors. | # chalkboard illustrations | -KLB bk2,pg285  -Advancing math bk2, pg207  -Discovering math bk2, pg146  -Explore math bk2, pg101  -JKF bk2, pg234-235 |  |
|  | 3 | Vectors | Addition of vectors | By the end of the lesson, the learner should be able to add vectors. | # adding vectors to get a single equivalent vector. | # chart illustration of vector addition. | -KLB bk2,pg 286  -Advancing math bk2, pg207 |  |
| **week wee** | **lessn** | **Topic** | **Subtopics** | **Learning/Teaching**  **Objectives** | **Learning /Teaching activities** | **Learning/Teaching**  **Resources** | **Reference** | **Remarks** |
|  | 4 | Vectors | Multiplication of a vector by a scalar | By the end of the lesson, the learner should be able to multiply vectors by scalars. | # multiplying vectors by scalars. | # chart illustrating vectors multiplied by scalars. | -KLB bk2,pg290  -Advancing math bk2, pg209  -Discovering math bk2, pg152-153  -Explore math bk2, pg104  -JKF bk2, pg244 |  |
|  | 5 | Vectors | Column vectors. | By the end of the lesson, the learner should be able to   1. define column vectors. 2. Add column vectors. | # defining column vectors.  # adding column vectors. | # square board.  # geometrical instruments.  # graph papers. | -KLB bk2,pg296  -Advancing math bk2, pg210  -Discovering math bk2, pg145-146  -JKF bk2, pg232 |  |
|  | 6 | Vectors | Column vectors | By the end of the lesson, the learner should be able to   1. define column vectors. 2. Add column vectors. | # defining column vectors.  # adding column vectors. | # square board.  # geometrical instruments.  # graph papers. | -KLB bk2,pg296  -Advancing math bk2, pg210  -Discovering math bk2, pg145-146  -JKF bk2, pg232 |  |
| 7 | 1 | Vectors | Problems involving column vectors. | By the end of the lesson, the learner should be able to solve problems involving column vectors. | # solving problems involving column vectors. | # square board.  # geometrical instruments.  # graph papers. | -KLB bk2,pg297  -Advancing math bk2, pg210  -Discovering math bk2, pg151  -JKF bk2, pg229 |  |
| **week wee** | **lessn** | **Topic** | **Subtopics** | **Learning/Teaching**  **Objectives** | **Learning /Teaching activities** | **Learning/Teaching**  **Resources** | **Reference** | **Remarks** |
|  | 2 | Vectors | Position vectors. | By the end of the lesson, the learner should be able to   1. define position vectors. 2. Solve problems involving position vectors. | # defining position vectors.  # solving problems involving position vectors. | # square board.  # geometrical instruments. | -KLB bk2,pg298  -Advancing math bk2, pg213  -Discovering math bk2, pg149  -JKF bk2, pg240 |  |
|  | 3 | Vectors | Problems involving column vectors. | By the end of the lesson, the learner should be able to solve more complex problems involving position vectors. | # solving more complex problems involving position vectors. | # square board.  # geometrical instruments. | -KLB bk2,pg300  -Advancing math bk2, pg213 |  |
|  | 4 | Vectors | Mid-point of a vector. | By the end of the lesson, the learner should be able to   1. find mid-point of a vector. 2. Find mid-point of two given points using vector methods | # finding mid-point of a vector.  # finding mid-point of two given points. | # charts illustrating vectors. | -KLB bk2,pg302  -Advancing math bk2, pg215  -Discovering math bk2, pg156  -JKF bk2, pg250 |  |
|  | 5 | Vectors | Magnitude of a vector. | By the end of the lesson, the learner should be able to find magnitude of a vector. | # finding magnitude of a vector. | # charts illustrating vectors. | -KLB bk2,pg301  -Advancing math bk2, pg215  -Discovering math bk2, pg154-155  -JKF bk2, pg245 |  |
|  | 6 | Vectors | Magnitude of a vector. | By the end of the lesson, the learner should be able to find magnitude of a vector. | # finding magnitude of a vector. | # charts illustrating vectors. | -KLB bk2,pg301  -Advancing math bk2, pg215  -Discovering math bk2, pg154-155  -JKF bk2, pg245 |  |
| **week wee** | **lessn** | **Topic** | **Subtopics** | **Learning/Teaching**  **Objectives** | **Learning /Teaching activities** | **Learning/Teaching Resources** | **References** | **Remarks** |
| 8 | 1 | Vectors | Translation. | By the end of the lesson, the learner should be able to perform an activity on translation. | # performing an activity on translation. | # charts illustrating translation. | -KLB bk2,pg304-308  -Advancing math bk2, pg217  -Discovering math bk2, pg145  -JKF bk2, pg236 |  |
|  | 2 | Vectors | Translation vector. | By the end of the lesson, the learner should be able to define translation as transformation. | # defining translation as a transformation.  # solving problems involving translation. | # charts illustrating translation. | -KLB bk2,pg305  -Advancing math bk2, pg217 |  |
|  | 3 | Vectors | Translation vector. | By the end of the lesson, the learner should be able to define translation as transformation. | # defining translation as a transformation.  # solving problems involving translation. | # charts illustrating translation. | -KLB bk2,pg305  -Advancing math bk2, pg217 |  |
|  | 4-6 | Revision |  |  |  |  |  |  |
| **9** | **1-6** | **Revision** |  | **Revision** | **Revision** |  |  |  |
| 10&11 |  | End of year | exams | Examinations | Examinations |  |  |  |