SCHEME OF WORK MATHEMATICS FORM 4 2022-MAY

TERM I ENDARASHA BOYS

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| **WK** | **LSN** | **TOPIC** | **SUB-TOPIC** | **OBJECTIVES** | **L/T ACTIVITIES** | **L/T AIDS** | **REFERENCE** | **REMARKS** |
| **2** | 1 | Matrices and Transformation | Transformation on a Cartesian plane | By the end of the lesson, the learner should be able to:  Relate image and objects under a given transformation on the Cartesian plane | Drawing objects and their images on Cartesian plane Practice Ex 1.1 P5 | Square boards  Peg boards and strings Rubber band | * K.M, Advancing in Math F4 Pg 1-3 * KLB Pg 1-6 |  |
| 2 | Matrices and Transformation | Transformation on a Cartesian plane | By the end of the lesson, the learner should be able to:  Relate image and objects under a given transformation on the Cartesian plane | Drawing objects and their images on Cartesian plane Practice Ex 1.1 P5 | Square boards  Peg boards and strings Rubber band | * K.M, Advancing in Math F4 Pg 1-3 * KLB Pg 1-6 |  |
| 3 | Matrices and Transformation | Identification of transformation matrix | By the end of the lesson, the learner should be able to:  Determine the matrix of a  transformation | Practice exercise KLB EX 1.2 and 1.3 | Square boards  Peg boards and strings Rubber band | * K.M, Advancing in Math F4 Pg 3-9 * KLB Pg 6-16 |  |
| 4 | Matrices and Transformation | Successive transformation | By the end of the lesson, the learner should be able to:  Perform successive transformation | Drawing objects and its successive images KLB Ex 1.4 | Square boards  Peg boards and strings Rubber band | * K.M, Advancing in Math F4 Pg 15-17 * KLB Pg 16-24 |  |
| 5 | Matrices and Transformation | Successive transformation | By the end of the lesson, the learner should be able to:  Perform successive transformation | Drawing objects and its successive images KLB Ex 1.4 | Square boards  Peg boards and strings Rubber band | * K.M, Advancing in Math F4 Pg 15-17 * KLB Pg 16-24 |  |
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|  | 6 | Matrices and Transformation | Successive transformation | By the end of the lesson, the learner should be able to:  Perform successive transformation | Drawing objects and its successive images KLB Ex 1.4 | Square boards  Peg boards and strings Rubber band | * K.M, Advancing in Math F4 Pg 15-17 * KLB Pg 16-24 |  |
| 7 | Matrices and Transformation | Single matrix of transformation for successive transformation | By the end of the lesson, the learner should be able to:  Determine and identify a single matrix  for successive transformation | Drawing objects and its successive images KLB Ex 1.4 | Square boards  Peg boards and strings Rubber band | * K.M, Advancing in Math F4 Pg 15-17 * KLB Pg 21 |  |
| 8 | Matrices and Transformation | Single matrix of transformation for successive transformation | By the end of the lesson, the learner should be able to:  Determine and identify a single matrix  for successive transformation | Drawing objects and its successive images KLB Ex 1.4 | Square boards  Peg boards and strings Rubber band | * K.M, Advancing in Math F4 Pg 15-17 * KLB Pg 21 |  |
| **3** | 1 | Matrices and Transformation | Relate Identity Matrix and Transformation | By the end of the lesson, the learner should be able to:  Relate identity matrix and  transformation | Practice exercise Ex 1.4 KLB BK 4 | Calculators | * K.M, Advancing in Math F4 Pg 13-14 * KLB Pg 22-24 |  |
| 2 | Matrices and Transformation | Inverse of a matrix area scale factor and determinant of a matrix | By the end of the lesson, the learner should be able to:  Determine the inverse of a  transformation | Practice exercise Ex 1.5 KLB BK 4 | Calculators | * K.M, Advancing in Math F4 Pg 14-15 * KLB Pg 24-26 |  |
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|  | 3 | Matrices and Transformation | Inverse of a matrix area scale factor and determinant of a matrix | By the end of the lesson, the learner should be able to:  Determine the inverse of a  transformation | Practice exercise Ex 1.5 KLB BK 4 | Calculators | * K.M, Advancing in Math F4 Pg 14-15 * KLB Pg 24-26 |  |
| 4 | Matrices and Transformation | Area of scale factor and determinant of a matrix | By the end of the lesson, the learner should be able to:  Establish and use the relationship between area scale factor and determinant of a matrix | Practice exercise Ex 1.5 KLB BK 4 pg 27 | Boards and strings Peg boards and strings Rubber band Calculators | * K.M, Advancing in Math F4 Pg 17-19 * KLB Pg 26-27 |  |
| 5 | Matrices and Transformation | Shear and stretch | By the end of the lesson, the learner should be able to:  Determine shear and stretch | Drawing objects and images under shear and stretch. Ex 1.6 | Square boards  Peg boards and strings Rubber band Calculators | * K.M, Advancing in Math F4 Pg 10-13 * KLB Pg 28-34 |  |
| 6 | Matrices and Transformation | Shear and stretch | By the end of the lesson, the learner should be able to:  Determine shear and stretch | Drawing objects and images under shear and stretch. Ex 1.6 | Square boards  Peg boards and strings Rubber band Calculators | * K.M, Advancing in Math F4 Pg 10-13 * KLB Pg 28-34 |  |
| 7 | Matrices and Transformation | Shear and stretch | By the end of the lesson, the learner should be able to:  Determine shear and stretch | Drawing objects and images under shear and stretch. Ex 1.6 | Square boards  Peg boards and strings Rubber band Calculators | * K.M, Advancing in Math F4 Pg 10-13 * KLB Pg 28-34 |  |
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|  | 8 | Statistics | Ogive | By the end of the lesson, the learner should be able to:  Use cumulative frequency tables to Draw the ogive | Drawing cumulative frequency curve (ogive) KLB Pg 4, Ex. 2.2 | Square boards Graph papers | * K.M, Advancing in Math F4 Pg 28-29 * KLB Pg 51-52 |  |
| **4** | 1 | Statistics | Median | By the end of the lesson, the learner should be able to:  Estimate the median and quartiles by Calculations  Ogive | Practice exercise KLB Pg 4, Ex. 2.2 | Square boards Graph papers Calculators | * K.M, Advancing in Math F4 Pg 29-31 * KLB Pg 48 |  |
| 2 | Statistics | Median | By the end of the lesson, the learner should be able to:  Estimate the median and quartiles by Calculations  Ogive | Practice exercise KLB Pg 4, Ex. 2.2 | Square boards Graph papers Calculators | * K.M, Advancing in Math F4 Pg 29-31 * KLB Pg 48 |  |
| 3 | Statistics | Median | By the end of the lesson, the learner should be able to:  Estimate the median and quartiles by Calculations  Ogive | Practice exercise KLB Pg 4, Ex. 2.2 | Square boards Graph papers Calculators | * K.M, Advancing in Math F4 Pg 29-31 * KLB Pg 48 |  |
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|  | 4 | Statistics | Median | By the end of the lesson, the learner should be able to:  Estimate the median and quartiles by Calculations  Ogive | Practice exercise KLB Pg 4, Ex. 2.2 | Square boards Graph papers Calculators | * K.M, Advancing in Math F4 Pg 29-31 * KLB Pg 48 |  |
| 5 | Statistics | Median | By the end of the lesson, the learner should be able to:  Estimate the median and quartiles by Calculations  Ogive | Practice exercise KLB Pg 4, Ex. 2.2 | Square boards Graph papers Calculators | * K.M, Advancing in Math F4 Pg 29-31 * KLB Pg 48 |  |
| 6 | Statistics | Quartile | By the end of the lesson, the learner should be able to:  Estimate median and quartiles by Calculations  ogive | Practice exercise KLB Pg 4, Ex. 2.2 | Square boards Graph papers Calculators | * K.M, Advancing in Math F4 Pg 29-31 * KLB Pg 46 |  |
| 7 | Statistics | Quartile | By the end of the lesson, the learner should be able to:  Estimate median and quartiles by Calculations  ogive | Practice exercise KLB Pg 4, Ex. 2.2 | Square boards Graph papers Calculators | * K.M, Advancing in Math F4 Pg 29-31 * KLB Pg 46 |  |
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|  | 8 | Statistics | Range- inter quartile range | By the end of the lesson, the learner should be able to:  Define and calculate measure of dispersion-range, quartiles and  inter-quartile range | Practice exercise KLB Pg 4, Ex. 2.2 | Calculators | * K.M, Advancing in Math F4 Pg 32-33 * KLB BK 4 |  |
| **5** | MID TERM EXAMS AND BREAK | | | | | | | |
| **6** | 1 | Statistics | Quartile deviation | By the end of the lesson, the learner should be able to:  Define and calculate measures of dispersion ? quartile deviation | Practice exercise KLB Pg 4, Ex. 2.2 | Calculators | * K.M, Advancing in Math F4 Pg 34-35 * KLB Bk4 Pg 57-59 |  |
| 2 | Statistics | Quartile deviation | By the end of the lesson, the learner should be able to:  Define and calculate measures of dispersion ? quartile deviation | Practice exercise KLB Pg 4, Ex. 2.2 | Calculators | * K.M, Advancing in Math F4 Pg 34-35 * KLB Bk4 Pg 57-59 |  |
| 3 | Statistics | Quartile deviation | By the end of the lesson, the learner should be able to:  Define and calculate measures of dispersion ? quartile deviation | Practice exercise KLB Pg 4, Ex. 2.2 | Calculators | * K.M, Advancing in Math F4 Pg 34-35 * KLB Bk4 Pg 57-59 |  |
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|  | 4 | Statistics | Quartile deviation | By the end of the lesson, the learner should be able to:  Define and calculate measures of dispersion ? quartile deviation | Practice exercise KLB Pg 4, Ex. 2.2 | Calculators | * K.M, Advancing in Math F4 Pg 34-35 * KLB Bk4 Pg 57-59 |  |
| 5 | Statistics | Quartile deviation | By the end of the lesson, the learner should be able to:  Define and calculate measures of dispersion ? quartile deviation | Practice exercise KLB Pg 4, Ex. 2.2 | Calculators | * K.M, Advancing in Math F4 Pg 34-35 * KLB Bk4 Pg 57-59 |  |
| 6 | Statistics | Variance | By the end of the lesson, the learner should be able to:  Define and calculate measures of Dispersion, variance interpret measure  of dispersion | Practice exercise KLB Pg 4, Ex. 2.2 | Calculators | * K.M, Advancing in Math F4 Pg 34-35 * KLB Bk4 Pg 57-59 |  |
| 7 | Statistics | Standard deviation | By the end of the lesson, the learner should be able to:   * Define and calculate measures of dispersion, standard deviation * Interpret measures of dispersion | Ex. 2.3  Exams ? CATS | Calculators | * K.M, Advancing in Math F4 Pg 34-39 * KLB Bk4 Pg 60 |  |
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|  | 8 | Statistics | Standard deviation | By the end of the lesson, the learner should be able to:   * Define and calculate measures of dispersion, standard deviation * Interpret measures of dispersion | Ex. 2.3  Exams ? CATS | Calculators | * K.M, Advancing in Math F4 Pg 34-39 * KLB Bk4 Pg 60 |  |
| **7** | 1 | Loci | Common types of Loci | By the end of the lesson, the learner should be able to:  Define locus | Practice exercise KLB Pg 4, Ex. 3.2 | Geometrical patterns | * K.M, Advancing in Math F4 Pg 40-41 * KLB Bk4 Pg 68 |  |
| 2 | Loci | Common types of Loci | By the end of the lesson, the learner should be able to:  Define locus | Practice exercise KLB Pg 4, Ex. 3.2 | Geometrical patterns | * K.M, Advancing in Math F4 Pg 40-41 * KLB Bk4 Pg 68 |  |
| 3 | Loci | Common types of Loci | By the end of the lesson, the learner should be able to:  Define locus | Practice exercise KLB Pg 4, Ex. 3.2 | Geometrical patterns | * K.M, Advancing in Math F4 Pg 40-41 * KLB Bk4 Pg 68 |  |
| 4 | Loci | Common types of Loci | By the end of the lesson, the learner should be able to:  Define locus | Practice exercise KLB Pg 4, Ex. 3.2 | Geometrical patterns | * K.M, Advancing in Math F4 Pg 40-41 * KLB Bk4 Pg 68 |  |
| 5 | Loci | Perpendicular bisector Loci | By the end of the lesson, the learner should be able to:  Describe common types of loci | Practice exercise KLB Pg 4, Ex. 3.2 | Geometrical patterns | * K.M, Advancing in Math F4 Pg 40 * KLB Bk4 Pg 69 |  |
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|  | 6 | Loci | Perpendicular bisector Loci | By the end of the lesson, the learner should be able to:  Describe common types of loci | Practice exercise KLB Pg 4, Ex. 3.2 | Geometrical patterns | * K.M, Advancing in Math F4 Pg 40 * KLB Bk4 Pg 69 |  |
| 7 | Loci | Loci of a point at a given distance from a fixed point and fixed line | By the end of the lesson, the learner should be able to:  Describe common types of loci | Practice exercise KLB Pg 4, Ex. 3.2 | Geometrical patterns | * K.M, Advancing in Math F4 Pg 40 * KLB Bk4 Pg 70-71 |  |
| 8 | Loci | Loci of a point at a given distance from a fixed point and fixed line | By the end of the lesson, the learner should be able to:  Describe common types of loci | Practice exercise KLB Pg 4, Ex. 3.2 | Geometrical patterns | * K.M, Advancing in Math F4 Pg 40 * KLB Bk4 Pg 70-71 |  |
| **8** | 1 | Loci | Angle bisector Loci | By the end of the lesson, the learner should be able to:  Describe common types of loci | Practice exercise KLB Pg 4, Ex. 3.2 | Geometrical patterns | * K.M, Advancing in Math F4 Pg 41 * KLB Bk4 Pg 71-72 |  |
| 2 | Loci | Angle bisector Loci | By the end of the lesson, the learner should be able to:  Describe common types of loci | Practice exercise KLB Pg 4, Ex. 3.2 | Geometrical patterns | * K.M, Advancing in Math F4 Pg 41 * KLB Bk4 Pg 71-72 |  |
| 3 | Loci | Angle bisector Loci | By the end of the lesson, the learner should be able to:  Describe common types of loci | Practice exercise KLB Pg 4, Ex. 3.2 | Geometrical patterns | * K.M, Advancing in Math F4 Pg 41 * KLB Bk4 Pg 71-72 |  |
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|  | 4 | Loci | Angle bisector Loci | By the end of the lesson, the learner should be able to:  Describe common types of loci | Practice exercise KLB Pg 4, Ex. 3.2 | Geometrical patterns | * K.M, Advancing in Math F4 Pg 41 * KLB Bk4 Pg 71-72 |  |
| 5 | Loci | Constant angle loci | By the end of the lesson, the learner should be able to:  Describe common types of loci | Practice exercise KLB Pg 4, Ex. 3.2 | Geometrical patterns | * K.M, Advancing in Math F4 Pg 42-43 * KLB Bk4 Pg 72-74 |  |
| 6 | Loci | Constant angle loci | By the end of the lesson, the learner should be able to:  Describe common types of loci | Practice exercise KLB Pg 4, Ex. 3.2 | Geometrical patterns | * K.M, Advancing in Math F4 Pg 42-43 * KLB Bk4 Pg 72-74 |  |
| 7 | Loci | Constant angle loci | By the end of the lesson, the learner should be able to:  Describe common types of loci | Practice exercise KLB Pg 4, Ex. 3.2 | Geometrical patterns | * K.M, Advancing in Math F4 Pg 42-43 * KLB Bk4 Pg 72-74 |  |
| 8 | Loci | Construction:- loci of the equalities | By the end of the lesson, the learner should be able to:  Construct loci | Involving inequalities | Geometrical instruments | - K.M, Advancing in Math F4 Pg 49 |  |
| **9** | 1 | Loci | Loci involving chords | By the end of the lesson, the learner should be able to:  Construct loci involving chords | Practice exercise KLB Pg 4, Ex. 3.5 | Geometrical instruments | * K.M, Advancing in Math F4 Pg 45-47 * KLB Bk4 Pg 84 |  |
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|  | 2 | Loci | Loci involving chords | By the end of the lesson, the learner should be able to:  Construct loci involving chords | Practice exercise KLB Pg 4, Ex. 3.5 | Geometrical instruments | * K.M, Advancing in Math F4 Pg 45-47 * KLB Bk4 Pg 84 |  |
| 3 | Loci | Loci involving chords | By the end of the lesson, the learner should be able to:  Construct loci involving chords | Practice exercise KLB Pg 4, Ex. 3.5 | Geometrical instruments | * K.M, Advancing in Math F4 Pg 45-47 * KLB Bk4 Pg 84 |  |
| 4 | Loci | Loci under given conditions including intersecting chords | By the end of the lesson, the learner should be able to:  Construct loci involving intersecting  Loci and under given conditions | Practice exercise KLB Pg 4, Ex. 3.4 | Geometrical instruments | - K.M, Advancing in Math F4 Pg 47-49 |  |
| 5 | Loci | Loci under given conditions including intersecting chords | By the end of the lesson, the learner should be able to:  Construct loci involving intersecting  Loci and under given conditions | Practice exercise KLB Pg 4, Ex. 3.4 | Geometrical instruments | - K.M, Advancing in Math F4 Pg 47-49 |  |
| 6 | Loci | Loci under given conditions including intersecting chords | By the end of the lesson, the learner should be able to:  Construct loci involving intersecting  Loci and under given conditions | Practice exercise KLB Pg 4, Ex. 3.4 | Geometrical instruments | - K.M, Advancing in Math F4 Pg 47-49 |  |
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|  | 7 | Trigonometry | Trigonometric ratios | By the end of the lesson, the learner should be able to:  Recall and define trigonometric ratios | Practice exercise KLB Pg 4, Ex. 4.1  Advancing BK 4, Ex. 4.1 | Chart illustrating Trigonometric ratios | * K.M, Advancing in Math F4 Pg 51-53 * KLB Bk4 Pg 90-93 |  |
| 7-8 | Trigonometry | Trigonometric ratios | By the end of the lesson, the learner should be able to:  Recall and define trigonometric ratios | Practice exercise KLB Pg 4, Ex. 4.1  Advancing BK 4, Ex. 4.1 | Chart illustrating Trigonometric ratios | * K.M, Advancing in Math F4 Pg 51-53 * KLB Bk4 Pg 90-93 |  |
| **10** | END TERM EXAMS AND HOLIDAY BREAK | | | | | | | |