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|  | TEACHER’S ACTIVITY | STUDENT’S ACTIVITY |
| PRESENTATION | The teacher presents the topic with the aid of these steps. |  |
| STEP 1 | **IDENTIFICATION OF PRIOR IDEA** |  |
|  | The teacher asks the students to define a scalar. | The students answer the question. |
| STEP 2 | **EXPLORATION** |  |
|  | The teacher explores by tasking the students to expand -4(*x* 5)(1 – *x*). | The students perform the task. |
| STEP 3 | **DISCUSSION** |  |
|  | **Scalar multiplication**  The product of a matrix A with any number ‘k’ is obtained by multiplying every entry or element of the matrix A by k, is called scalar multiplication. That is, ij k(Aij).  *Properties of scalar multiplication in matrices*  The different properties of matrices for scalar multiplication of any scalar k with matrices A and B are given as:   1. k(A B) kA kB 2. – k(A) - (kA)   **Multiplication of matrices**  Given two matrices A and B, the multiplication AB is defined only if the number of columns in A is equal to the number of rows in B. Let A be of order *m* *n* and B be of the order *n* *p*. The matrix AB will be of the order *m* *p* and will be obtained by multiplying each row in A successively with columns in B.  *Properties of matrix multiplication*   1. AB BA 2. A(BC) (AB)C 3. A(B C) AB AC 4. A*I* *I*A A | The students listen to the teacher and copy the note. |
| STEP 4 | **APPLICATION** |  |
|  | Example 1  Given matrices X and Y , solve the equation 2W Y X.  Solution  2W Y X  W (Y X)  Y X      W  Example 2  Given matrices A and B , find AB.  Solution  AB | The students listen to the teacher and ask questions. |
| STEP 5 | **EVALUATION** |  |
|  | The teacher evaluates the lesson with the questions below:   1. Given matrices A and B , find the matrix T such that T 4B – 2A. 2. Find the product BC given that B and C . | The students solve the questions. |
| CONCLUSION | The teacher concludes the lesson by giving corrections to the evaluation questions. |  |
| ASSIGNMENT | Find the values of *p* and *q* respectively if L , M and LM . |  |
| REFERENCE | New Concept Mathematics for senior secondary school book 3 by H N Odogwu, et al. |  |