1. What is necessary condition for matrix multiplication?

Ans: Two matrices A and B are confirmable for multiplication AB if

No of columns of A = No of Rows of B

1. How the multiplication of matrices is carried out?

Ans: Let we have matrices A & B

A= and B=

AB=

AB=

1. What is geometric transmission with matrices?

Ans: In geometric transformation with matrices the vertices of geometric figure are represented in the form of matrix.

A: (0.00,0.00)

A: (2.00,5.00)

A: (7.00,-1.00)

**B**

**A**

**C**

1. State the general properties of matrix multiplication.

Ans: In general,

1. A.BB.A (not commutative)
2. A(BC) = AB(C) (Associative)
3. A.0= 0 (0 being zero matrix)
4. A.I = I.A = A (I being identity matrix)
5. (A+B)C= AC+BC
6. A(B+C)= AB+AC
7. How scalar multiplication is different from matrix multiplication.

Ans: In scalar multiplication one constant value is multiplied with each element of a matrix whereas in matrix multiplication two conformable matrices are multiplied with each other.

If order of a matrix A is 3×2 and order of matrix B is 2×4 then order of AB will be:

1. 2×2
2. 3×2
3. 3×4
4. 4×3

Ans: c

**ROBLEM 01**

**ROBLEM 02**

Given A= B= and C= find the following if exists:

* 1. AB
  2. BA
  3. CA
  4. BC

So AB doesn’t exists

Not equal

For (a) Order is

A B

2×1 2×2

For (b) Order is

B A

2×2 2×1

Equal, BA exists and has order 2×1

For (c) Order is

C A

1×2 2×1

equal , CA is possible and has the order 1×2

C= A=

For (d) Order is

B C

2×1 2×2

Not equal BC doesn’t exists.

**ROBLEM 03**

From the matrices if the geometrical figures have following vertices.

A(0,0) B(5,2) C(-4,2)

A(4,8) B(-7,4)

A(0,0) B(0,4) C(4,4)