

## Worksheet: Matrices

Maharashtra State Board · Class 12 · Mathematics · 3 questions · 12 marks

Name: \_\_\_\_\_

Date: \_\_\_\_\_

Score: \_\_\_\_\_ / 12

**Q1.** If  $A = \begin{bmatrix} 2 & 3 \\ 1 & 1 \end{bmatrix}$  and  $B = \begin{bmatrix} 1 & 0 \\ 2 & 1 \end{bmatrix}$ , find  $AB$  and  $BA$ . Comment on commutativity. [3 marks]

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**Q2.** Express  $A = \begin{bmatrix} 3 & 2 & 1 \\ 4 & 0 & 5 \\ 1 & 2 & 3 \end{bmatrix}$  as the sum of a symmetric and a skew-symmetric matrix. [3 marks]

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**Q3.** Using elementary row operations, find the inverse of  $A = \begin{bmatrix} 1 & 2 & 3 \\ 2 & 5 & 7 \\ 2 & 4 & 5 \end{bmatrix}$ . [6 marks]

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