**Assignment 04**

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| Name | 이주애 | Student ID | 202135565 |
| Affiliation | software | Subject | Software Mathematics |

\* NumPy API Reference: <https://numpy.org/doc/stable/reference>

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| 1. Matrix multiplication example |
| **Answer** |
| 1. Source code      1. Execution result |

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| 2. Transposing a Matrix example |
| **Answer** |
| 1. Source code      1. Execution result |

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| 3. Matrix Inverse example with |
| **Answer** |
| 1. Source code      1. Execution result | |

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| 4. Calculate from A2 to A10, where  (Hint: use numpy.linalg.matrix\_power()) |
| **Answer** |
| 1. Source code     2)Execution result |

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| 5. Find vector , where  (Hint: use an inverse matrix) |
| **Answer** |
| 1. Source code      1. Execution result |

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| 6. Find a determinant of  (Hint: use numpy.linalg.det() ) |
| **Answer** |
| 1. Source code      1. Execution result |

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| 7. Find eigenvalues and eigenvectors of  (Hint: use numpy.linalg.eig() ) |
| **Answer** |
| 1. Source code      1. Execution result |