Questions: Introduction to Matrices

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Summary

A selection of questions on matrices.

Before attempting these questions, it is highly recommended that you read Guide: Introduction to matrices.

# Q1

## Q1.1

Give the dimensions of the following matrices:

1.1.1.

1.1.2.

1.1.3.

1.1.4.

1.1.5.

1.1.6.

1.1.7.

1.1.8.

## Q1.2

Give the values of the following entries:

1.2.1.

1.2.2.

1.2.3.

1.2.4.

1.2.5.

1.2.6.

1.2.7.

1.2.8.

1.2.9.

1.2.10.

1.2.11.

1.2.12.

## Q1.3

Give the main diagonals of the following matrices:

1.3.1.

1.3.2.

1.3.3.

1.3.4.

# Q2

Calculate the following questions using matrix addition, subtraction and scalar multiplication:

## Q2.1

2.1.1.

2.1.2.

2.1.3.

2.1.4.

2.1.5.

2.1.6.

2.1.7.

2.1.8.

2.1.9.

2.1.10.

2.1.11.

2.1.12.

2.1.13.

2.1.14.

2.1.15.

2.1.16.

# Q3

Calculate the following using matrix multiplication:

## Q3.1

3.1.1.

3.1.2.

3.1.3.

3.1.4.

3.1.5.

3.1.6.

3.1.7.

3.1.8.

3.1.9.

3.1.10.

3.1.11.

3.1.12.

3.1.13.

3.1.14.

3.1.15.

3.1.16.

## Q3.2

3.2.1.

3.2.2.

3.2.3.

3.2.4.

## Q3.3

3.3.1.

3.3.2.

3.3.3.

3.3.4.

3.3.5.

3.3.6.

After attempting the questions above, please click this link to find the answers.

## Version history

v1.0: initial version created 04/25 by ect6 (as part of a University of St Andrews VIP project)