\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_ Date \_\_\_/\_\_\_/\_\_\_

Family name Given name Student number

**ENS1161 Computer Fundamentals**

**Test 11**

(a) Given:

 and  ,

find the product AB.

……………………

(b) (i) Find the inverse of the matrix 

……………………

(ii) Use the result of part (i) to solve the system of equations:

2x - y = 4

x - 3y = -3

x = …..…… y = ..……….

(c)

1

2

−1

−1

2

1

A

B

C

D

E

Find the images A', B', C', D' and E’ of the vertices of the polygon ABCDE under the transformation represented by the matrix



E

A' ……....……, B' ……....……, C' ……....……, D' …....………, E’ ……………

Then draw the image A'B'C'D'E' of the polygon on the set of axes provided.

2

4

−2

2

4

0

-4

−2

−4

[2 + 2 + 2 + 4 = 10 marks ]