

Learning Brief

**TA1**

**Matrices, sequences and mensuration**

**Week**

**Term**

**2015**

09-10

1

Topic: Matrices

* understand the structure, properties and behaviour of matrices
* be competent in basic manipulations of matrices

Applications of matrices

Forming simultaneous equations from written information.

Solving XA = B by hand where A and B are 2 x 2 matrices.

Using CAS Graphic Calculator for larger matrices.

Goals



Practical Components

Theoretical Components

**STEP 2:**

Applications of matrix equations

**Further Maths, Ch 16: Exercise 16E:**

1 (all), 2(a, b, e, f), 3(all), 5, 6(i[a-e]), 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18.

Tip: Ask someone! Asking for help is smart and clever.

**STEP 1:**

Remember to see your teacher with your work before **Friday** from now on; otherwise you will lose marks on the investigation each week.

If you have done work but not shown me, it does not count yet!!!

**“SHOW ME THE INVESTIGATION!!!”**

**This week:** *Further Mathematics* Chapter 16

* Read Worked example 12
* View e-lesson-tutorial on worked examples 13

<http://www.mathsisfun.com/algebra/systems-linear-equations-matrices.html>

Solving Matrix Equations:

Watch these videos:

<https://www.youtube.com/watch?v=TcRnf_KWFts>

<https://www.youtube.com/watch?v=_QOtp5afX2o>

<http://bit.ly/xpXJNX>

Investigation

**STEP 4:**

a) Solve the matrix equation: $\left[\begin{matrix}4&2\\-8&-4\end{matrix}\right]\left[\begin{matrix}x\\y\end{matrix}\right]=\left[\begin{matrix}4\\8\end{matrix}\right]$

b) What does this result mean in terms of solving matrix equations?

c) Give an example to demonstrate your understanding.

QFO

Quiz/Forum/Other

 **STEP 3: Quiz**

Link: <http://www.quiz-creator.com/qms/quiz.php?u616212q45366v2588926986>

Username: ID@actedu.net.au

p/w: (you should know by now)