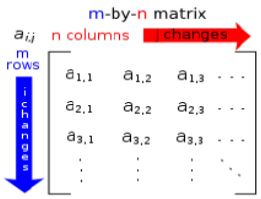
Week 04
Term 1
2015

Learning Brief

SM1: Number Patterns, Relations, Functions

Goals



By the end of this week, you should be able to:

- understand the structure, properties and behaviour of matrices
- be competent in basic manipulations of matrices
- explain and find the identity matrix
- explain and find what is a determinant
- explain and find the multiplicative inverse
- use the CAS to find the determinant and multiplicative inverse, and to solve matrix equations

Theoretical Components

Matrices - this weeks work is from 7C *Solving matrix equations*

View the following websites, read and make notes: Review simultaneous equations

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

Finding the determinant (calculate manually 2x2 matrices, for higher order use CAS)

http://www.mathsisfun.com/algebra/matrix-determinant.html

Finding the inverse of a matrix and solving a matrix equation:

http://www.mathsisfun.com/algebra/matrix-inverse.html

http://hotmath.com/hotmath_help/topics/solving-matrix-equations.html

Practical Components

From the PDF file *Chap 7 Matrices.*

Ex 7C You should attempt as many of these questions as you can.
You should be able to solve any 2 x 2 matrix manually, for larger matrices use CAS.

The worksheet below has some simple questions on determinants.

http://www.mathworksheets4kids.com/matrices/determinants/1.pdf

This worksheet has questions on solving equations not involving inverses.

http://www.kutasoftware.com/FreeWorksheets/Alg2Worksheets/Matrix%20Equations%201.pdf

This worksheet has questions on solving equations involving inverses.

http://www.kutasoftware.com/FreeWorksheets/Alg2Worksheets/Matrix%20Equations%202.pdf

QFO

Quiz/Forum/Other

There is an on-line quiz this week. The link is;

http://www.quiz-creator.com/qms/quiz.php?u616212q44676v1025732805

Your username and password are the same as for the Skills Test.