**MATHEMATICS METHODS UNIT 2 TEST 4**

**RESOURCE FREE NAME: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**TIME ALLOWED: 20 MIN**

***Show all your working clearly.*** *Your working should be in sufficient detail to allow your answers to be checked readily and for marks to be awarded for reasoning. Incorrect answers given without supporting reasoning cannot be allocated any marks. For any question or part question worth more than two marks, valid working or justification is required to receive full marks. If you repeat any question, ensure that you cancel the answer you do not wish to have marked.*

**QUESTION 1 (2,3,3 marks)**

Simplify each of the following leaving answers with positive indices:

1. 
2. 
3. 

**QUESTION 2 (2,2 marks)**

Simplify:

1. 
2. (

**QUESTION 3 (3 marks)**

The eighth term and twelfth term of an arithmetic sequence are 24 and 40 respectively. Find the general rule for this sequence.

**QUESTION 4 (3,3 marks)**

Solve each of the following:

1. 
2. 

**TOTAL MARKS: 21**