**GCSE – A Level Bridging Materials 1**

**These are all questions that you should definitely be able to answer, even if you have to refresh your memory with textbooks or the internet.**

**1.** (a) Work out the value of 
Give your answer as a fraction in its simplest form.

…………………….

(2)

(b) Work out the value of 
Give your answer as a fraction in its simplest form.

…………………….

(3)

(Total 5 marks)

**2.** (a) Simplify

(i) *p*2 × *p*7

………………………

(ii) *x*8 ÷ *x*3

 ………………………

 (iii)  …………………………(3)

(b) Expand *t*(3*t*2 + 4)

…………………………

(2)

(Total 5 marks)

**3.** Simplify fully (3*xy*2)4

………………….

(Total 2 marks)

**4.** Solve the simultaneous equations
 2*x* + 3*y* = 6
 3*x* − 2*y* = 22

*x* = ……………………

*y* = ……………………

(Total 4 marks)

**5.**



 In the diagram *A* is the point (0, –2),
 *B* is the point (–4, 2),
 *C* is the point (0, 3).

 Find an equation of the line that passes through *C* and is parallel to *AB.*

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(Total 4 marks)

**6.** Solve 2(5*x* + 3) = 3*x* - 22

*x* = ……………..

(Total 3 marks)

**7.** (a) Factorise *x*2 + 6*x* + 8

………………………

(2)

(b) Solve *x*2 + 6*x* + 8 = 0

*x* **=**………………………

or *x* =………………………

(1)

(Total 3 marks)