

(C2-3.6a) Name:

### **Homework Questions 6 – Changing the Base of a Logarithm**

Change the base of the following so that it is a logarithm in base 10 only, and then solve to 3sf

1.  $\text{Log}_4 8$

1.5

2.  $\text{Log}_3 25$

2.93

3.  $\text{Log}_4 87$

3.22

4.  $\text{Log}_6 7$

1.09

5.  $\text{Log}_5 9$

1.37

6.  $\text{Log}_9 11$

1.09

7.  $\text{Log}_{12} 15$

1.09

8.  $\text{Log}_7 4$

0.712

9.  $\text{Log}_3 x + 5 \text{Log}_x 3 = 6$

3, 243

10.  $\text{Log}_4 x - 10 \text{Log}_x 4 = 3$

1024