

(C2-3.2a) Name:

## Homework Questions 2 – Writing an Expression as a Log

1. Rewrite the following as a logarithm

a)  $7^2 = 49$

$$\log_7 49 = 2$$

c)  $2^6 = 64$

$$\log_2 64 = 6$$

b)  $3^4 = 81$

$$\log_3 81 = 4$$

d)  $5^3 = 125$

$$\log_5 125 = 3$$

2. Rewrite the following as a power

a)  $\text{Log}_2 x = 24$

$$2^{24} = x$$

c)  $\text{Log}_5 14 = x$

$$5^x = 14$$

b)  $\text{Log}_3 81 = 4$

$$3^4 = 81$$

d)  $\text{Log}_2 16 = 4$

$$2^4 = 16$$

3. Rewrite the following as a power and then solve.

a)  $\text{Log}_5 125 = x$

$$3$$

c)  $\text{Log}_7 343 = x$

$$3$$

b)  $\text{Log}_4 256 = x$

$$4$$

d)  $\text{Log}_3 243 = x$

$$5$$

4. Solve the following

a)  $2^x = 32$

$$5$$

c)  $\text{Log}_3 27 = x$

$$3$$

b)  $7^4 = x$

$$2401$$

d)  $\text{Log}_6 36 = x$

$$2$$