

## 10.4 Applications of Logarithms

1)

- a) 7
- b) -6

3) Between 4 and 5

5)

$x$	$\log(x)$
4.2	0.6
42	1.6
420	2.6
4200	3.6
42,000	4.6

7)

$x$	$\log(x)$
0.058	-1.2
0.58	-0.2
5.8	0.8
58	1.8
580	2.8

11) Larger

13)

- a)  $0.0001 \frac{\text{moles}}{\text{L}}$
- b)  $2.5 \cdot 10^{-7} \frac{\text{moles}}{\text{L}}$

15) 120 decibels

1)  $x = \frac{15}{4} = 3.75$

3)

- a)  $x = 2$
- b)  $x = 1$