

1. Change into exponential form: a) $\log_2 8 = 3$ b) $\log_{10} 1000 = 3$
2. Write in exponential form: a) $\log_7 = 1$.
3. Whats $\log_a(a^x)$?
4. Write in logarithmic form: a) $4^3 = 64$ b) $10^{-2} = 0.01$.
5. The air pressure at an altitude of h feet above sea level is $p(h) = 14.7e^{-0.0000385h}$. Using this, what's the air pressure at an altitude of 20,000ft.
6. What's the air pressure at an altitude of -5ft?
7. Meg rowed her boat upstream 9 miles and then rowed back downstream to the starting point. The total time of the trip was 10 hours. The current rate was 4mph, then how fast would the boat go in still water?
8. Working together, two roommates can paint their apartment in 10 hours. Working alone, one of the roommates can complete the job in 2 hours less time than the other roommate working alone. How long would each person take working alone?
9. A rectangular pool is 20 feet wide and is surrounded by a walkway of uniform width. If the total area of the walkway is 516 square feet, how wide is the walkway?
10. Find the length of the sides of the right triangle shown in Figure 1 below.