

Algebra 2 Hwk #3 Logarithms

Spring 2019

Name:

1. Rewrite each into logarithmic form.

a) $\log_3 x = 7$

b) $\log 8 = x$

c) $\log_x 5 = 100$

2. Rewrite each into exponential form.

a) $12^x = 70$

b) $x^9 = 200$

c) $10^3 = x$

3. Solve each. Round to the nearest hundredth.

a) $8^x = 500$

b) $10^x = 225$

4. The number of cells in a culture is doubling every hour. There are 500 cells at 10:00. In how many hours will there be 1,000,000 cells? Round to the nearest hundredth.

5. The number of people in a city is decreasing 3.5% each year. The population in 2015 was 400,000. In how many years will the population reach 300,000? Round to the nearest tenth.