

Quiz 10, Version 2, Spring 2008, Math 112

Name: _____
By writing my name I swear by the honor code.

Please do this quiz by yourself without using any materials. You may take as long as you need. The quiz is due on Friday, April 18th.

A rumor about a presidential candidate begins to spread on September 1st (you may take this as $t = 0$ and assume that nobody knows the rumor yet). On September 21st ($t = 20$), 20,000 people have heard the rumor. Assuming that the rate of increase of people who have heard the rumor is proportional to the square root of the number of people who haven't and the total population is 1,000,000, how many people would have heard the rumor by November 2nd ($t = 62$)?