Name _____ **Date** _____ **Period**_____

Integrated Math 3B Homework Week of May 7th, 2018

7-35. Ryan has the chickenpox! He was told that the number of pockmarks on his body would grow exponentially until his body overcomes the illness. He counted 60 pockmarks on November 1 and by November 3 the number had grown to 135. To determine when the first pockmark appeared, he needs to write the exponential function that models the number of pockmarks based on the date in November. Homework Help ✎

a. Ryan decides to use the points (1, 60) and (3, 135) to write an equation for the exponential model. Use these points to write the equation of his function in the form $y = ab^x$.

b. According to your model, on what day did Ryan get his first chickenpox pockmark?

7-36. When Lorretta was 18 years old, she deposited $100 into a 20-year certificate of deposit (CD) account that earns interest at a better rate than her standard savings account. She must leave the money in the account for 20 years, without making any withdrawals or deposits. Six years later, she had $132 in the account. Write an equation that will represent this situation, and use the equation to determine how much money Lorretta will have in her CD after 20 years. Homework Help ✎