6. [7 points] The Go Blue Zoo breeds its own insect populations for feeding some of the birds and reptiles. However, a virus infected the cricket breeding program on January 1, 2023. The cricket population started at 1,000,000 crickets, but decreased by 15% per week once the colony was infected.

   a. [3 points] How many weeks did it take for the population to decrease by 60%? Show all work. Give your answer in exact form, or accurate to at least two decimal places.

   b. [2 points] By what percentage did the cricket population decrease for each day? Show all work. Give your answer in exact form, or accurate to at least two decimal places.

   c. [2 points] If the population instead decayed at a continuous rate of 15% per week, by what non-continuous percentage would it decrease in one week? Show all work. Give your answer in exact form, or accurate to at least two decimal places.