3. [6 points]
   a. [4 points] For which value(s) of the constant $A$ is the function
      \[ R(t) = \begin{cases} 
      5(13)^t & \text{for } t < 2, \\
      20 - 3t^2 & \text{for } t \geq 2. 
      \end{cases} \]
      continuous? Find your answer algebraically and give your answer in exact form. If no such value exists, write “DNE”. Show all your work step by step.

      Answer: $A = $?

   b. [2 points] A different function, $f(d)$, has the property that
      \[ \lim_{d \to \infty} f(d) = 10. \]
      What is the value of
      \[ \lim_{d \to \infty} 4f(2d - 14) + 9? \]
      Write “DNE” if the limit does not exist or “NI” if there is not enough information to answer the question. You do not need to show your work.

      Answer: ___________________