Here is some data about the growth of a bacteria population
(bacteriology Lab, Dr. Linda Finke)

Light is sent through a solution in which bacteria grows. As the bacteria population grows, the solution gets hazier, and less light is detected on the other side of the test tube. In other words, more of the light is kept from going through the solution, more light is absorbed. The machine measures "absorbance the light" (percentage of light absorption) which, we are told by the manufacturer, is proportional to the size of the population.

(This means that for some number K, the population size = $K \cdot \text{absorption value}$.)

Light absorption values taken by Dr. Finke (and her students) are as follows:

$t = $ time in minutes after the beginning of the experiment
$A = $ light absorption value ($\%$), which we are told is proportional to population size.

<table>
<thead>
<tr>
<th>time (minutes)</th>
<th>0</th>
<th>15</th>
<th>30</th>
<th>45</th>
<th>60</th>
<th>75</th>
</tr>
</thead>
<tbody>
<tr>
<td>light absorption</td>
<td>.046</td>
<td>.060</td>
<td>.076</td>
<td>.108</td>
<td>.151</td>
<td>.215</td>
</tr>
</tbody>
</table>

Fit an exponential model to the light absorption data. Does the model fit the data well?
If the population size is $K \cdot \text{absorption value}$, what is a model for the population size?
Interpret the model in terms of the bacteria population.