MATH 1743: Practice Quiz #4

Problem 1: What are the four parts of a good interpretation of a change answer?
1. 
2. 
3. 
4. 

Problem 2: Fill in the following table:

<table>
<thead>
<tr>
<th></th>
<th>Formula</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Change</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Percent Change</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Average Rate of Change</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Problem 3: Write the following interest formulas, and then fill in the blanks for what each of the variables in the formula represent:

Interest compounded \( n \) times per year: Continuously compounded interest:

\[ A = \text{__________________________} \quad P = \text{__________________________} \]

\[ r = \text{__________________________} \quad t = \text{__________________________} \]

Problem 4: Write down the following formulas for APR and APY:

a. APR (also known as the ____________ rate) annually:

b. APY (also known as the ____________ rate):

for \( n \) compoundings per year:

for continuous compounding:
Problem 5: The American Indian, Eskimo, and Aleut population in the United States was 362 thousand in 1930 and 2434 thousand in 2000. Find the average rate of change over this time period. Round your answer to the nearest tenth.

Problem 6: An investment is made with an interest rate of 8%, compounded continuously. How long will it take for the investment to double? Round your answer to the nearest hundredth.

Problem 7: Draw tangent lines on the following graphs at the marked points: