1. This table gives data from a plant growth experiment.

<table>
<thead>
<tr>
<th>Time (weeks)</th>
<th>Height (cm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>4.6</td>
</tr>
<tr>
<td>4</td>
<td>5.8</td>
</tr>
<tr>
<td>7</td>
<td>9.4</td>
</tr>
</tbody>
</table>

Graph this data. Connect the points. Use the slope of the line to find the rate of growth of the plant.

2. Find the rate of change for the data graphed on the line.

   [A] $-\frac{400}{9}$, value drops $400$ every 9 yrs
   [B] $-\frac{40}{1}$, value drops $360$ every 9 yrs
   [C] $-\frac{40}{3}$, value drops $120$ every 9 yrs
   [D] $-\frac{400}{3}$, value drops $1200$ every 9 yrs

3. Find the rate of change for the data graphed on the line.

   [A] $-\frac{30}{1}$, value drops $270$ every 9 yrs
   [B] $-\frac{100}{1}$, value drops $900$ every 9 yrs
   [C] $-\frac{100}{3}$, value drops $300$ every 9 yrs
   [D] $-\frac{10}{1}$, value drops $90$ every 9 yrs
4. Find the rate of change for the data graphed on the line.

![Graph of Height of a Balloon vs Time](image)

5. Find the rate of change for the data graphed on the line.

![Graph of Height of a Balloon vs Time](image)

6. Compare the quantities in Column A and Column B.

![Graph of Annual Profits](image)

<table>
<thead>
<tr>
<th>Column A</th>
<th>Column B</th>
</tr>
</thead>
<tbody>
<tr>
<td>the rate of change for A</td>
<td>the rate of change for B</td>
</tr>
</tbody>
</table>

[A] The quantity in Column A is greater.  
[B] The quantity in Column B is greater.  
[C] The quantities are equal.  
[D] The relationship cannot be determined from the information given.
Check students’ graphs. Rate of growth: 1.2 cm per week

[1] A

[3] C

\[ \frac{50}{3}, \text{ the balloon ascends 1000 ft every 60 seconds.} \]

[4] B

\[ \frac{25}{2}, \text{ the balloon ascends 1000 ft every 80 seconds.} \]