You must show your work to get full credit.

This is the graph of \( \frac{dP}{dt} = P'(t) \)
the rate of change of the size of the frog population.

Let \( P(t) \) be the size of a population of frogs in a garden pond as a function of the number of months, \( t \), since January. The graph shows the graph of the rate of change, \( \frac{dP}{dt} = P'(t) \), of the frog population in frogs/month. If the population starts with 30 frogs, then complete the following table. (HINT: Each box in the figure represents how many frogs?)

<table>
<thead>
<tr>
<th>( t )</th>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>( P(t) )</td>
<td>40</td>
<td>50</td>
<td>55</td>
<td>50</td>
<td>40</td>
<td>35</td>
<td>50</td>
<td>50</td>
</tr>
</tbody>
</table>

Each box is \((1\text{ month}) \times (10\text{ frogs/month}) = 10\text{ frogs}\)

\[
P(1) = 40 + 1 \times 10 = 50 \text{ Frogs}
\]
\[
P(2) = 50 + 5 = 55 \text{ Frogs}
\]
\[
P(3) = 55 - 5 = 50 \text{ Frogs}
\]
\[
P(4) = 50 - 10 = 40 \text{ Frogs}
\]
\[
P(5) = 40 - 5 = 35 \text{ Frogs}
\]