Ed the Flea enjoyed the Super Colossal Flea Ferris Wheel, but after a few rides, he got bored. He wanted bigger! Faster! weirder! He heard about a better ferris wheel in Diz-Flea-Land, and went to check it out. It had a diameter of 6 feet, went around clockwise, and completed one turn every 20 seconds. Let $h = f(t)$ be the height, in feet, off the ground $t$ seconds after Ed’s ride starts.

Diz-Flea-Land Ferris Wheel

1. Fill in the following table of values for $h = f(t)$:

<table>
<thead>
<tr>
<th>$t$ seconds since start</th>
<th>0</th>
<th>5</th>
<th>10</th>
<th>15</th>
<th>20</th>
<th>25</th>
<th>30</th>
<th>35</th>
</tr>
</thead>
<tbody>
<tr>
<td>$f(t)$, height in feet</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

2. Draw a graph of Ed’s height during the first minute.
3. Find a formula for $h = f(t)$.

4. How high above the ground is Ed after he’s been riding for 2.5 minutes?

5. How high above the ground is Ed after he’s been riding for 17 seconds? (Round to 3 decimal places)

6. How high above the ground is Ed after he’s been riding for 10.1 minutes? (Round to 3 decimal places)

7. For what value(s) of $t$ is Ed 6 feet off the ground?