1. (6 points) The table gives the values of a function $f$.

<table>
<thead>
<tr>
<th>$x$</th>
<th>2</th>
<th>4</th>
<th>6</th>
<th>8</th>
</tr>
</thead>
<tbody>
<tr>
<td>$f(x)$</td>
<td>15</td>
<td>9</td>
<td>6</td>
<td>2</td>
</tr>
</tbody>
</table>

(a) If $f$ could be a linear function, find a possible formula for $f$. If not, explain why not.

(b) If $f$ could be an exponential function, find a possible formula for $f$. If not, explain why not.

2. (8 points) For the periodic function with the graph given below, determine:

(a) the period of the function; __________

(b) the amplitude of the function; __________

(c) a possible formula for the function. $f(x) =$ ________________

[Graph showing a periodic function with x-axis from -11 to 11 and y-axis from -2 to 4]