Group Work 22: Riemann Sums Exercises

Part 1: Distance Travelled

Hunter is on a 60-hour cross-country motorcycle trip. He wants to know how far he travels, but his odometer is busted. So he records his speed every 12 hours. Here is the speed data.

<table>
<thead>
<tr>
<th>Time t in hours</th>
<th>0</th>
<th>12</th>
<th>24</th>
<th>36</th>
<th>48</th>
<th>60</th>
</tr>
</thead>
<tbody>
<tr>
<td>Speed v(t) in miles per hour</td>
<td>30</td>
<td>28</td>
<td>25</td>
<td>22</td>
<td>24</td>
<td>27</td>
</tr>
</tbody>
</table>

Estimate the distance that Hunter travelled.

Sharks: Use the speeds at the beginning of each time interval.

Jets: Use the speeds at the end of each time interval.
Part 2: Revisiting a Riemann sum, this time with more rectangles.

For the function $f(x) = x^2 - 2x - 3$ on the interval $[1,9]$.

**Sharks:** Compute $L_8$.

**Jets:** Compute $R_8$. 