Daily Dilemma #3: Answer Key

1. Let $a =$ Prince Henry’s age when he became interested in ships
   
   $2(a + 12) = 50$ so $a = 13$ years old

2.

<table>
<thead>
<tr>
<th>Turns of wheel</th>
<th>3</th>
<th>6</th>
<th>9</th>
<th>12</th>
<th>15</th>
<th>18</th>
<th>21</th>
<th>24</th>
</tr>
</thead>
<tbody>
<tr>
<td>Height of sail</td>
<td>4</td>
<td>8</td>
<td>12</td>
<td>16</td>
<td>20</td>
<td>24</td>
<td>28</td>
<td>32</td>
</tr>
</tbody>
</table>

So 24 turns of the wheel opens the sail 32 feet. Every time the wheel turns 3 times, the height of the sail increases 4 feet.

3. $56 + 56 + \square = 187$
   The third side is 75 feet long.

4. $3 \times 5 = 15$ meals

5. $129 \div 3 = 42$ sailors on each ship