4. [11 points] Invertible functions $q$, $n$, and $h$ are described by the table, formula, and graph below. Use this information to answer the questions that follow.

<table>
<thead>
<tr>
<th>$x$</th>
<th>$-4$</th>
<th>$-1$</th>
<th>$0$</th>
<th>$1$</th>
<th>$4$</th>
</tr>
</thead>
<tbody>
<tr>
<td>$q(x)$</td>
<td>$10$</td>
<td>$1$</td>
<td>$-1$</td>
<td>$-2$</td>
<td>$-4$</td>
</tr>
</tbody>
</table>

$n(t) = 3 - 2t$

Graph of $y = h(x)$

**a.** [3 points] Based on the data in the table above, determine which of the following statements could be true about the function $q$ on the entire interval from $x = -4$ to $x = 4$. (Circle all such statements or circle NONE OF THESE.)

- $q$ is an increasing function.
- $q$ is a decreasing function.
- $q$ is a linear function.
- $q$ is concave up.
- $q$ is concave down.
- None of these

**b.** [5 points] Evaluate each of the following.

(i) $h(-2) - 2q(-4)$
(ii) $5q^{-1}(1)$

Answer: __________  Answer: __________

(iii) $q(q(q(0)))$
(iv) $n(h^{-1}(-3))$

Answer: __________  Answer: __________

c. [3 points] Find a formula for $4n(n(t))$. Simplify your answer completely.

Answer: $4n(n(t)) = _____________________________