1. On the graph provided, fill out the following T-table for the given linear equation, and then graph the linear equation:

\[-3x + 5y = -15\]

<table>
<thead>
<tr>
<th>x</th>
<th>y</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>-5</td>
<td></td>
</tr>
</tbody>
</table>

2. What is the slope of the line and the y-intercept of the line given in problem #1 (above)?

3. Does the point \((10, 3)\) lie on this line (given in problem #1 [above])?
   
   If so, say “Yes, the point lies on the line \(-3x + 5y = -15\)” …
   
   or if not so, say “No, the point does not lie on the line \(-3x + 5y = -15\).”
   
   Your statement should be justified through the use of substitution of both the values for “x” and “y” into the original equation and the yielding of a true statement.

4. What quadrant does the point mentioned in problem #3; that is, the point \((10, 3)\), lie in?
   
   Use the notation used in class!
5. What is the equation of the line (either in slope-intercept or general/standard form) of the line that is perpendicular to the line given in problem #1 and that goes through the point (4, -1)?

6. On the graph provided, graph the solution to the following compound inequality:

\[-4x - 2y \geq -5 \quad \text{or} \quad y > 3\]

For problems #7 - 9, use the following functions, \( f(x) = -2x + 1 \) and \( g(x) = x^2 + 3 \)

7. Find \( g(2) \)

8. Find \( f(g(2)) \)

9. Find \( g(f(x)) \)

10. If \( x \) varies inversely as \( y \), and \( x = 75 \) when \( y = 10 \), then find \( y \) when \( x = 15 \).