Math 110
More Notes on Linear Equations

1. Sketch and label lines with the indicated slopes.
   (a) $m$ is positive and large.
   (b) $m$ is positive and close to zero.
   (c) $m$ is negative and close to zero.
   (d) $m < -2$

   Arrange the lines above (a – d) in order from least slope to greatest slope:
   __________ < __________ < __________ < __________

2. Graph two different lines with slope $\frac{3}{4}$.

3. Write the equation of a line parallel to $y = \frac{2}{3}x - 4$.

4. Make a table for the equation $y = \frac{7}{2}x + 3$.

<table>
<thead>
<tr>
<th>$x$</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

5. Find the equation for the table below.

<table>
<thead>
<tr>
<th>$x$</th>
<th>-6</th>
<th>-3</th>
<th>0</th>
<th>3</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>$y$</td>
<td>12</td>
<td>7</td>
<td>2</td>
<td>-3</td>
<td>-8</td>
</tr>
</tbody>
</table>
6. (a) Graph the equation \( y = \frac{2}{3}x - 4 \)
(b) Plot the point \((-3, 5)\)
(c) Draw the line through \((-3, 5)\) that is parallel to \( y = \frac{2}{3}x - 4 \).
(d) Write the equation of the new line: 

\[ \text{__________________________} \]

7. (a) Graph the equation \( y = -\frac{3}{4}x + 3 \)
(b) Plot the point \((-6, -2)\)
(c) Draw the line through \((-6, -2)\) that is perpendicular to \( y = -\frac{3}{4}x + 3 \).

8. Write the equation of the line below.