Unit 3 Test Review

Name: ___________________ Date: _________ Block: ______

**SLOPE (A1.3A)**

1. Find the slope

<table>
<thead>
<tr>
<th>x</th>
<th>y</th>
</tr>
</thead>
<tbody>
<tr>
<td>-3</td>
<td>0</td>
</tr>
<tr>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>-6</td>
<td>-2</td>
</tr>
<tr>
<td>6</td>
<td>6</td>
</tr>
</tbody>
</table>

\[ m = \text{_______} \]

2. Find the slope

\[ m = \text{_______} \]

3. Find the slope

\((1,3)\) and \((-2,0)\)

\[ m = \text{_______} \]

4. Find the slope

\[ y = \frac{4}{3} x + 2 \]

\[ m = \text{_______} \]

**INTERCEPTS (A1.3C)**

5. Find the x and y intercepts

<table>
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<tr>
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<td>-2</td>
</tr>
<tr>
<td>6</td>
<td>6</td>
</tr>
</tbody>
</table>

\[ x = \text{_______} \]

\[ y = \text{_______} \]

6. Find the x and y intercepts

\[ x = \text{_______} \]

\[ y = \text{_______} \]

7. Find the x and y intercepts

\((0,3)\) and \((-2,0)\)

\[ x = \text{_______} \]

\[ y = \text{_______} \]

8. Find the x and y intercepts

\[ y = \frac{1}{2} x - 3 \]

\[ x = \text{_______} \]

\[ y = \text{_______} \]
### Parts of Linear Equations (A1.3A)

<table>
<thead>
<tr>
<th>Question</th>
<th>Equation</th>
<th>Slope</th>
<th>y-intercept</th>
</tr>
</thead>
<tbody>
<tr>
<td>9.</td>
<td>( y = \frac{1}{2}x - 3 )</td>
<td>( m = \frac{1}{2} )</td>
<td>( b = -3 )</td>
</tr>
<tr>
<td>10.</td>
<td>( y = x - 1 )</td>
<td>( m = 1 )</td>
<td>( b = -1 )</td>
</tr>
<tr>
<td>11.</td>
<td>( y = \frac{1}{3}x + 1 )</td>
<td>( m = \frac{1}{3} )</td>
<td>( b = 1 )</td>
</tr>
<tr>
<td>12.</td>
<td>( y = x )</td>
<td>( m = 1 )</td>
<td>( b = 0 )</td>
</tr>
</tbody>
</table>

### Changes in \( y = mx + b \) (A1.3E)

13. Which of the following is 2 units higher than \( y = 3x - 1 \)? (circle one)
   a. \( y = 3x + 1 \)
   b. \( y = 5x - 1 \)

14. Which of the following equations has the same slope as \( y = \frac{1}{3}x - 3 \)? (circle one)
   a. \( y = \frac{1}{3}x - 3 \)
   b. \( y = 3x + 5 \)

15. Which slope is the steepest? (circle one)
   a. \( y = 4x - 3 \)
   b. \( y = \frac{1}{3}x - 4 \)
### Writing Linear Equations (A1.2C)

16. Write an equation of a line in slope-intercept form. \((y = mx + b)\)

<table>
<thead>
<tr>
<th>(x)</th>
<th>(y)</th>
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<tbody>
<tr>
<td>-3</td>
<td>0</td>
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</tr>
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<td>6</td>
<td>6</td>
</tr>
</tbody>
</table>

\(y = \) ______

17. Write an equation of a line in slope-intercept form. \((y = mx + b)\)

18. Write an equation of a line in slope-intercept form. \((y = mx + b)\)

(0,3) and (-2,0)

\(y = \) ______

19. Write an equation of a line in slope-intercept form. \((y = mx + b)\)

\(2x - y = -2\)

\(y = \) ______

### Rewriting Equations (A1.2C)

20. Rewrite to slope-intercept form \((y = mx + b)\)

\(2x - 3y = 12\)
<table>
<thead>
<tr>
<th></th>
<th>HOY VUX (A1.2G)</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>21.</td>
<td>Graph ( y = 3 ) (hint: HOY or VUX?)</td>
<td>22.</td>
<td>Graph ( x = 3 ) (hint: HOY or VUX?)</td>
</tr>
<tr>
<td><img src="image1" alt="Graph y = 3" /></td>
<td><img src="image2" alt="Graph x = 3" /></td>
<td></td>
<td></td>
</tr>
<tr>
<td>23.</td>
<td>Write an equation for the following line.</td>
<td>24.</td>
<td>Write an equation for the following line.</td>
</tr>
<tr>
<td><img src="image3" alt="Graph line" /></td>
<td><img src="image4" alt="Graph line" /></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>LINEAR INEQUALITIES (A1.3D)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>25.</td>
<td>Graph ( 2x - 3y &lt; 12 )</td>
<td></td>
<td></td>
</tr>
<tr>
<td><img src="image5" alt="Graph inequality" /></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>