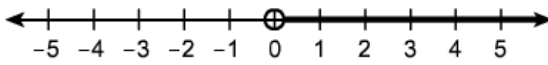
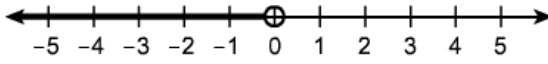
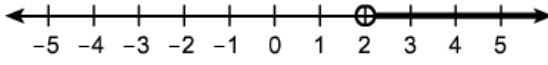
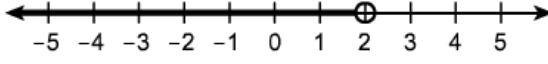


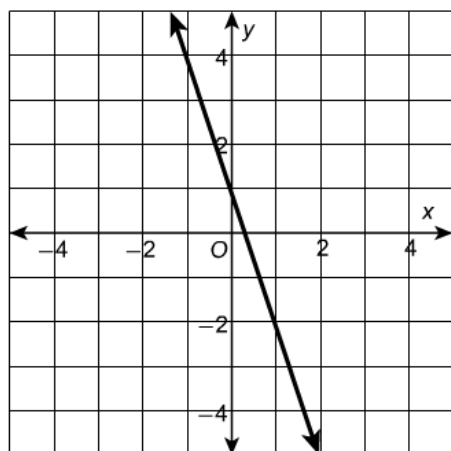
# FCPS Algebra 1 Common Assessment 1

Question Number	Question
1	<p>Which of the sets shown include the elements of Set Z that are both even numbers and multiples of 3?</p> <p><math>Z = \{-12, -10, -9, -1, 3, 6, 8, 15\}</math></p> <p> <input type="radio"/> A. <math>\{6\}</math>  <input type="radio"/> B. <math>\{-12, 6\}</math>  <input type="radio"/> C. <math>\{-12, -9, 3, 6, 15\}</math>  <input type="radio"/> D. <math>\{-12, -10, -9, -1, 3, 6, 8, 15\}</math> </p>
2	<p>Order the numbers from least to greatest.</p> <div> <div>3.3</div> <div><math>\frac{22}{7}</math></div> <div><math>\sqrt{11}</math></div> <div><math>\sqrt{\frac{32}{3}}</math></div> </div>
3	<p>What is the value of x in this equation?</p> <p><math>3x + 8 - 2(1 - x) = 1</math></p> <p> <input type="radio"/> A. -9  <input type="radio"/> B. -6  <input type="radio"/> C. -5  <input type="radio"/> D. -1         </p>
4	<p>The sum of three consecutive integers is 84. What are the three numbers?</p> <p>number 1: <input type="text"/></p> <p>number 2: <input type="text"/></p> <p>number 3: <input type="text"/></p>
5	<p>How many solutions are there to this equation?</p> <p><math>4x - 6 + 3(2 - x) = 2x - (x - 4)</math></p> <p> <input type="radio"/> A. no solution  <input type="radio"/> B. exactly one solution  <input type="radio"/> C. at least two solutions  <input type="radio"/> D. infinitely many solutions         </p>

6	<p>Solve the equation <math>d = gh - f</math> for <math>h</math>.</p> <p><input type="radio"/> A. <math>h = \frac{d - f}{g}</math></p> <p><input type="radio"/> B. <math>h = \frac{d}{g} + f</math></p> <p><input type="radio"/> C. <math>h = \frac{d + f}{g}</math></p> <p><input type="radio"/> D. <math>h = \frac{d}{g} - f</math></p>
7	<p>Solve the inequality.</p> $8(x - 2) + 9 < 3(x - 1) + 5x$ <p><input type="radio"/> A. <math>x &lt; -7</math></p> <p><input type="radio"/> B. <math>x &lt; -3</math></p> <p><input type="radio"/> C. no solution</p> <p><input type="radio"/> D. all real numbers</p>
8	<p>Graph the solution of the inequality on a number line.</p> $3(x - 2) - (1 - x) > 2x - 7$ <p><input type="radio"/> A. </p> <p><input type="radio"/> B. </p> <p><input type="radio"/> C. </p> <p><input type="radio"/> D. </p>
9	<p>Solve the compound inequality.</p> $3 - 2x \geq 5 \text{ or } 3(x - 2) + 1 > 7$ <p><input type="radio"/> A. <math>x \leq -4</math> or <math>x &lt; 1</math></p> <p><input type="radio"/> B. <math>x \geq -4</math> or <math>x &lt; 1</math></p> <p><input type="radio"/> C. <math>x \leq -1</math> or <math>x &gt; 4</math></p> <p><input type="radio"/> D. <math>x \geq -1</math> or <math>x &gt; 4</math></p>

10

Which equation matches the graph?



- ☐ A.  $y = -3x + 1$
- ☐ B.  $y = -3x - 1$
- ☐ C.  $y = -2x + 1$
- ☐ D.  $y = -2x - 1$

11

What is the equation of the line through  $(-2, -2)$  and  $(4, -5)$ ?

- ☐ A.  $y = \frac{1}{2}x - 1$
- ☐ B.  $y = -\frac{1}{2}x - 3$
- ☐ C.  $y = 2x + 2$
- ☐ D.  $y = -2x - 6$

12

Fatima is saving up to buy a \$300 bike. She saves \$25 each week from her babysitting money. Which linear equation represents the amount Fatima still has to save after  $x$  weeks?

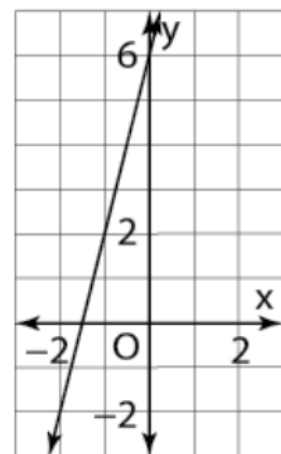
- ☐ A.  $y = 25x + 300$
- ☐ B.  $y = 25x - 300$
- ☐ C.  $y = -25x - 300$
- ☐ D.  $y = -25x + 300$

13

Complete the equation for the horizontal line that passes through  $(11, 4)$ .
 $y =$  

14

Which equation matches the graph?



- ☐ A.  $y - 2 = 4(x + 1)$
- ☐ B.  $y - 1 = 4(x + 2)$
- ☐ C.  $y + 2 = -4(x + 1)$
- ☐ D.  $y + 1 = -4(x + 2)$

15	<p>What is an equation in point-slope form of the line that passes through the point (8, 5) and has slope <math>-7</math>?</p> <p><input type="radio"/> A. <math>y + 5 = 7(x + 8)</math></p> <p><input type="radio"/> B. <math>y + 5 = -7(x + 8)</math></p> <p><input type="radio"/> C. <math>y - 5 = 7(x - 8)</math></p> <p><input type="radio"/> D. <math>y - 5 = -7(x - 8)</math></p>															
16	<p>What is an equation in point-slope form of the line that passes through (1, <math>-6</math>) and (4, 6)?</p> <p><input type="radio"/> A. <math>y + 1 = 4(x - 6)</math></p> <p><input type="radio"/> B. <math>y - 1 = 4(x + 6)</math></p> <p><input type="radio"/> C. <math>y + 6 = 4(x - 1)</math></p> <p><input type="radio"/> D. <math>y - 6 = 4(x + 1)</math></p>															
17	<p>Identify the x-intercept and the y-intercept of the graph of <math>6x + 15y = -30</math>.</p> <p><input type="radio"/> A. x-intercept: 2; y-intercept: 5</p> <p><input type="radio"/> B. x-intercept: <math>-2</math>; y-intercept: <math>-5</math></p> <p><input type="radio"/> C. x-intercept: 5; y-intercept: 2</p> <p><input type="radio"/> D. x-intercept: <math>-5</math>; y-intercept: <math>-2</math></p>															
18	<p>Luke sells pins for \$4 each and rings for \$6 each. Complete the equation which determines the number of pins <math>x</math> and the number of rings <math>y</math> he must sell to make \$40.</p> <p> <input type="text" value="Choose..."/> <math>x + </math> <input type="text" value="Choose..."/> <math>y = </math> <input type="text" value="Choose..."/> </p> <table border="1"> <thead> <tr> <th>Choose...</th> <th>Choose...</th> <th>Choose...</th> </tr> </thead> <tbody> <tr> <td>4</td> <td>1</td> <td>10</td> </tr> <tr> <td>1</td> <td>6</td> <td>40</td> </tr> <tr> <td>2</td> <td>4</td> <td>24</td> </tr> <tr> <td>6</td> <td>2</td> <td>2</td> </tr> </tbody> </table>	Choose...	Choose...	Choose...	4	1	10	1	6	40	2	4	24	6	2	2
Choose...	Choose...	Choose...														
4	1	10														
1	6	40														
2	4	24														
6	2	2														
19	<p>Which equation is the slope-intercept form of the line that passes through (1, 2) and is parallel to the graph of <math>y = \frac{8}{3}x</math>?</p> <p><input type="radio"/> A. <math>y = \frac{8}{3}x - 2</math></p> <p><input type="radio"/> B. <math>y = \frac{8}{3}x - \frac{2}{3}</math></p> <p><input type="radio"/> C. <math>y = \frac{8}{3}x - \frac{3}{2}</math></p> <p><input type="radio"/> D. <math>y = \frac{8}{3}x + 2</math></p>															
20	<p>What is the y-intercept of the line <math>y + 8 = -4(x - 4.5)</math>?</p> <p>y-intercept = <input type="text"/></p>															