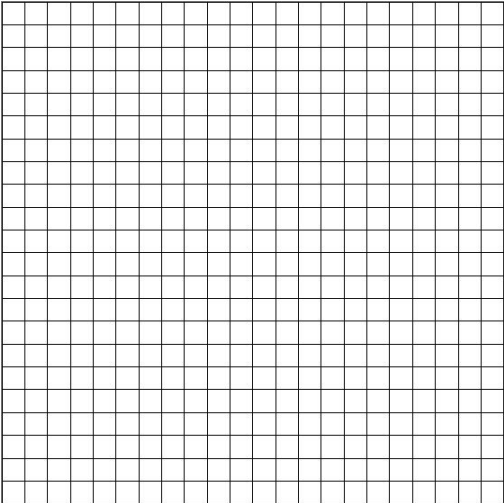


1-3 Building Linear Equations	Name:																					
<b>PART I</b>																						
Story Problem	Equation:																					
Graph: 	Table x=0 is 9:00 <table><tr><th>Time</th><th>X: hours since 9am</th><th>Number of Snapchats</th></tr><tr><td>9:00</td><td></td><td>20</td></tr><tr><td>9:30</td><td></td><td>23</td></tr><tr><td>10:00</td><td></td><td>26</td></tr><tr><td>10:30</td><td></td><td></td></tr><tr><td>11:00</td><td></td><td>32</td></tr><tr><td>12:00</td><td></td><td></td></tr></table>	Time	X: hours since 9am	Number of Snapchats	9:00		20	9:30		23	10:00		26	10:30			11:00		32	12:00		
Time	X: hours since 9am	Number of Snapchats																				
9:00		20																				
9:30		23																				
10:00		26																				
10:30																						
11:00		32																				
12:00																						

**PART II**

- 1. Does this situation have a positive or negative slope?
- 2. How long until you will have 65 snapchats?

### **PART III**

1. What are the two things needed to build a linear equation?

**With the given information, write an equation of a line in the following forms: point-slope, slope-intercept**

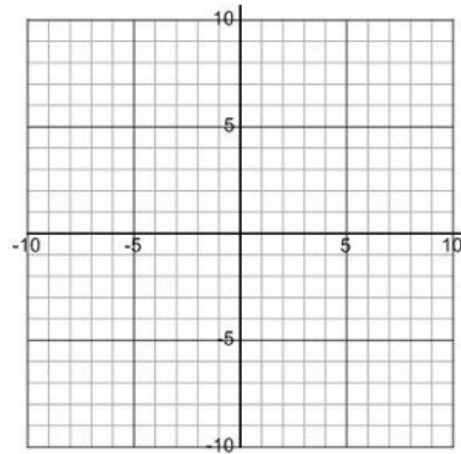
<p>2. Through: <math>(-5, 5)</math> slope: <math>-\frac{4}{5}</math></p> <p>Point-Slope:</p>   <p>Slope-Intercept:</p>	<p>3. Through: <math>(-2, -4)</math> and <math>(0, 4)</math></p> <p>Point-Slope:</p>   <p>Slope-Intercept:</p>
<p>4. Through: <math>(-1, 4)</math> and <math>(-2, 2)</math></p> <p>Point-Slope:</p>   <p>Slope-Intercept:</p>	<p>5. Through: <math>(5, 1)</math> and <math>(0, 4)</math></p> <p>Point-Slope:</p>   <p>Slope-Intercept:</p>

<p>6. Given the TABLE answer the following questions:</p> <table border="1"><thead><tr><th>Miles Driven</th><th>Cost of Cab Ride</th></tr></thead><tbody><tr><td>5</td><td>\$20</td></tr><tr><td>10</td><td>\$35</td></tr></tbody></table> <p>a. What is the Equation of this situation (point-slope form)?</p>  <p>b. What does the Y-Intercept represent?</p>  <p>c. What does the Slope Represent?</p>  <p>d. How much would a 7 mile cab ride cost?</p>	Miles Driven	Cost of Cab Ride	5	\$20	10	\$35	<p>7. <b>Without using a calculator, evaluate the following expressions. Make sure to show your work.</b></p> <p>a. <math display="block">\frac{20 - 8}{4 + 7 - (3 + 10 - 4)}</math></p> <p>b. <math display="block">(11 - 1)^2 \div (2 - 1 + 4) + 10 \div 5</math></p>
Miles Driven	Cost of Cab Ride						
5	\$20						
10	\$35						
<p>8. Find the x-int &amp; y-int of <math>3x - 2y = 12</math></p>	<p>9. Evaluate the following for <math>x = -2</math></p>						

$$3x^2 - 2x + 8$$

10. Solve the equation algebraically and graphically.

$$3x + 4 = 2x + 6$$



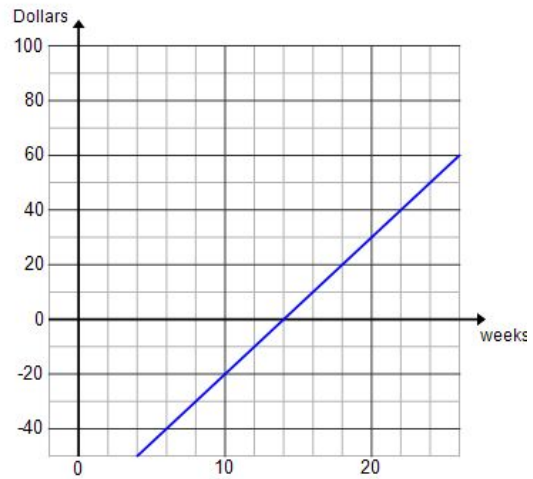
11. PG is building a new Rec Center. The perimeter of the rectangular playing field is 344 yards. The length of the field is 8 yards less than double the width. What are the dimensions of the playing field?

12. Story:

13. Equation:

14. Table

Graph:



Which of these 2 people will be out of debt first? EXPLAIN how you know.

15. Tom has a debt of \$100. He earns \$8 every month for mowing the lawn, and \$1 a week for keeping his room clean.

Jane is shown in the table below.

Week	Amount of Debt
2	-\$90
5	-\$80

$(3, -5)$

$$m = 4$$

$(-3, 5)$

$$m = \frac{2}{3}$$

$(3, 5)$

$$m = -3$$

$(3, 2)$

$$m = -4$$

$(-4, -1)$

$$m = \frac{1}{4}$$

$(5, 6)$

$$m = -1$$

$(4, -7)$

$$m = 1$$

$(4, -3)$

$$m = 2$$

$(3,0)$

$(0,4)$

X-intercept

$(5,0)$

Y-intercept

$(0,-2)$