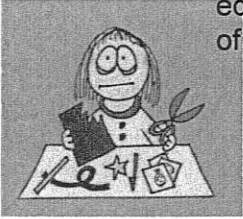


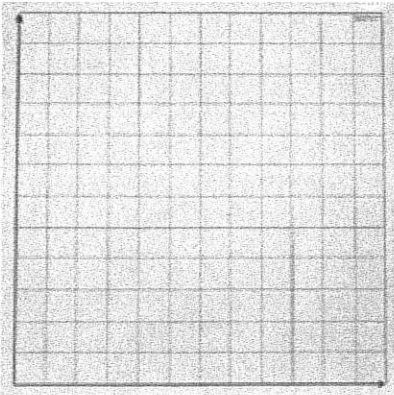
## Concept #7 – Writing Linear Equations

Write and graph an equation. Identify and interpret the slope,  $y$ -intercept and  $x$ -intercept (when appropriate).

1. Your mom is making a scrapbook for all of your wonderful middle school memories (Go Colts!). The album costs \$10 and each of the scrapbook papers costs an additional \$1. Write an equation that represents the cost of the completed scrapbook where  $x$  represents the number of scrapbook pages you purchase.



Equation: \_\_\_\_\_

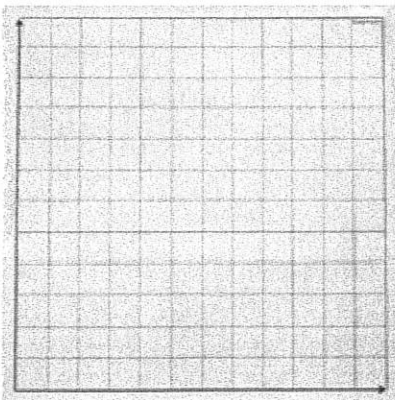


slope = \_\_\_\_\_ and it means.....

$y$ -intercept = \_\_\_\_\_ and it means....

- 
2. A hot tub that holds 120 gallons of water drains at a rate of 10 gallons per minute. Write an equation that represents how many gallons of water are left in the tub after it has drained for  $x$  minutes.

Equation: \_\_\_\_\_



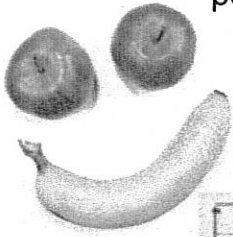
slope = \_\_\_\_\_ and it means.....

$y$ -intercept = \_\_\_\_\_ and it means....

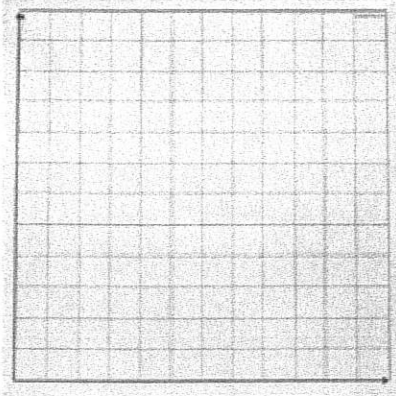
$x$ -intercept = \_\_\_\_\_ and it means....



3. You have \$6 to spend on apples and bananas. If the apples cost \$1.50 per pound and the bananas cost \$0.60 per pound, write an equation that represents the number of pounds of apples and bananas you can purchase.



Equation: \_\_\_\_\_



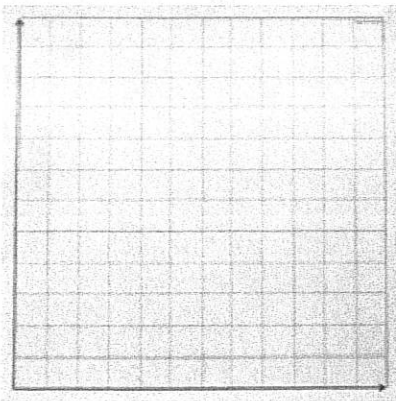
slope = \_\_\_\_\_ and it means.....

y-intercept = \_\_\_\_\_ and it means....

x-intercept = \_\_\_\_\_ and it means....

- 
4. The amount of money you spend on CDs and DVDs is \$126. Write an equation that represents the number of CDs and DVDs you can purchase if CDs cost \$14 each and DVDs cost \$18 each.

Equation: \_\_\_\_\_



slope = \_\_\_\_\_ and it means.....

y-intercept = \_\_\_\_\_ and it means....

x-intercept = \_\_\_\_\_ and it means....