

1. (a)  $f(4) = 1.5$   
(b)  $f(8) = 1.5$
2. (a)  $x = 1, x = 1.5, x = 4.5,$  and  $x = 7$   
(b)  $m = \frac{2-1}{7-3} = \frac{1}{4} = 0.25$
3. (a)  $y = 3.75x - 241$  or  $y - 299 = 3.75(x - 144)$   
(b) slope =  $\frac{-7}{3}$   
  
horizontal intercept = 30
4. (a)  $y = 5.4667x - 206.1333$   
(b) 187.4691 pounds (if you use the rounded formual is part a) or 187.4667 pounds (if you use the formual that is not rounded.)
5.  $f(x)$  concave up  
 $g(x)$  is linear  
 $h(x)$  is concave down
6. (a) vertical intercept is 2000. this is the starting ballance of the account  
  
(b)  $\frac{4000 - 2000}{4 - 0} = 500$ dollars per year  
  
(c) during the first four years, the ballance of the account grew on average by \$500 each year.