



Solution  
**255**

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1. Perimeter =  $2y + 3x = 3,600$   
Rectangle Area,  $A = xy$   
Solving the first equation for  $y$ :  $y = 1,800 - (3/2)x$   
Then  $A = 1,800x - (3/2)x^2$   
 $dA/dx = 1,800 - 3x = 0$   
So that  $x = 600$  ft.  
 $y = 1,800 - (3/2)600 = 900$  ft.
2. Here  $2y + 3x = L$   
 $A = xy$   
 $y = L/2 - (3/2)x$   
 $A = xL/2 - (3/2)x^2$   
 $dA/dx = L/2 - 3x = 0$   
 $x = L/6$   
 $y = L/4$