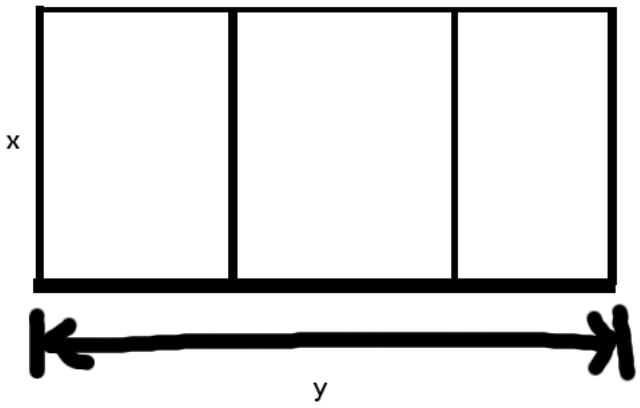
Name:_____ **Section**:_____

Problem 1. A farmer has 1800 ft. of fencing available to build 3 adjacent pens.



(a) Express the total area of the pens as a function of a side x. (2 points.)

(b) Find the domain of the area function you found in (a). Hint: use the fact that $y > 0$. (2 points.)

(c) Find the dimensions of x and y that produces the largest area. You must show your work to receive full credit. (4 points.)

(d) Find the largest total area of the pens.