# MATA32 – Winter 2010
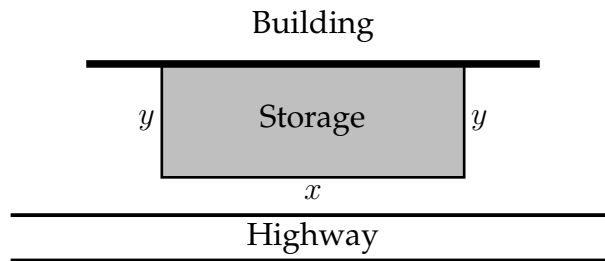## Quiz 9

Name: _____

1. A manufacturer plans to fence in a 500 m² rectangular storage area adjacent to a building by using the building as one side of the enclosed area (see the picture below). The fencing parallel to the building faces a highway and will cost $5 per meter installed, whereas the fencing for the other two sides costs $2 per meter installed. What is the minimum the fence will cost?

Building

$y$    Storage    $y$

$x$

Highway

2. A cable company currently has 100,000 subscribers who are each paying a monthly rate of $40. A survey reveals that for each $0.25 increase to the rate, the company will lose 250 subscribers. What monthly rate should the company charge to maximize their revenue?