Homework 7
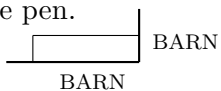
1. Find the largest area that a farmer can enclose by constructing a rectangular pen from 40 feet of fencing, if he uses a corner of his barn for two walls of the pen.

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2. Find two numbers whose product is a maximum, under the condition that the sum of half the first number and ten times the second number is 100.

   What is the maximum product that these two numbers produce?