

## Section 11.7 Applied problems

1. A farmer has 120 ft of fencing. He wants to put a fence around a rectangular field next to a building. (See figure below) Find the maximum area he can enclose, and the dimensions of the field when the area is maximized.



2. Solve the problem above if the farmer has only 100 ft of fencing.

Answers:

1. Maximum area is 1800 ft when the field measures 30 ft by 60 ft.
2. Maximum area is 1250ft when the field measures 25 ft by 50 ft.