

1. Audio The owner of a ranch decides to enclose a rectangular region with 140 feet of fencing. To help the fencing cover more land, he plans to use one side of his barn as part of the enclosed region. What is the maximum area the rancher can enclose?

2. Audio A farmer wishes to enclose a rectangular region bordering a river using 600 feet of fencing. He wants to divide the region into two equal parts using some of the fence material. What is the maximum area that can be enclosed with the fencing?

3. Audio A local grocery store has plans to construct a rectangular parking lot on land that is bordered on one side by a highway. There are 1280 feet of fencing available to enclose the other three sides. [Let x represent the length of the two parallel sides of fencing.] Find the dimensions that will maximize the area of the parking lot.

A. 204,800 square feet

B. 320 ft. by 640 ft.

C. 640 ft. by 320 ft.

D. -320 ft. by 1920 ft.