A farmer hires a professional surveyor to use 1,200 ft. of fencing in designing the largest rectangular area having four parallel fence partitions.

1. What is the length of each fence partition?
2. What are the dimensions of the rectangular area?
3. What is the maximum area?

The professional surveyor later decides to solve the same problem with L ft. of fencing and n partitions.

4. What is the length of each partition?
5. What are the dimensions of the rectangular area?
6. What is the maximum area?