

Intellectual Need Task for Optimization (Modeling)

A farmer wants to start raising goats. She has 300 ft of fence. She decides to build a rectangular lot (small pen) next to the barn where she keeps feed. The barn will be one side of the lot, and the other three sides need to use the fencing.

What is the largest area lot that she can build?

1. 150 ft
2. 75 ft
3. 100 ft
4. 90000 ft^2
5. 11250 ft^2
6. 5625 ft^2
7. Other