CHAPTER 7

SECTION 7B

MULTI-STEP TEST PREP

Polynomials

Don't Fence Me In James has 500 feet of fencing to enclose a rectangular region on his farm for some sheep.

1. Make a sketch of three possible regions that James could enclose and give the corresponding areas.

2. If the length of the region is x, find an expression for the width.

3. Use your answer to Problem 2 to write an equation for the area of the region.

4. Graph your equation from Problem 3 on your calculator. Sketch the graph.

5. James wants his fenced region to have the largest area possible using 500 feet of fencing. Find this area using the graph or a table of values.

6. What are the length and width of the region with the area from Problem 5? Describe this region.