STUDENT COMPANION

Name: _____

If Linda wishes to purchase 72 feet of fencing, how much would it cost Linda to purchase the fence if she saves 15% off the entire purchase with using her "We R' Fencing" credit card and there is 7% sales tax? show all computation and explain how you ascertained your solution.
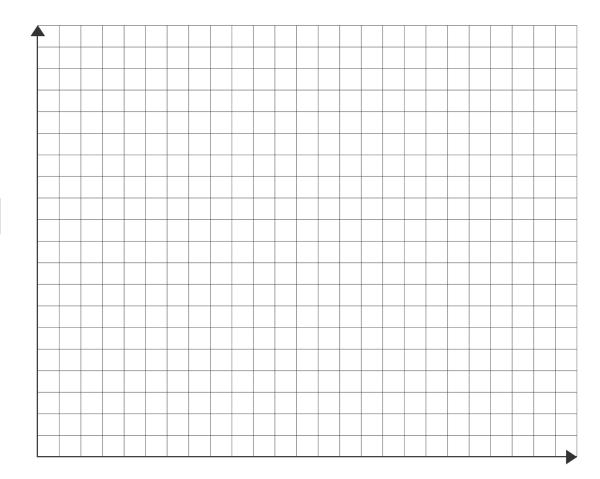
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What are the possible dimensions of pens that Linda could construct? Organize your findings in a table of values. The table will describe the relationship between the length of the pen and the total area. Graph the relationship. Let (x) represent the length and (y) represent the area. Describe the shape of the graph.

Length	Width	Perimeter	Area

BOTL: EXTEND YOUR THINKING 2 continued

BOTL: EXTEND YOUR THINKING 2 continued

If Linda wants to construct a pen that has the largest area for Bruno to run and play, what should be the dimensions of this pen? Explain how you came to this conclusion.
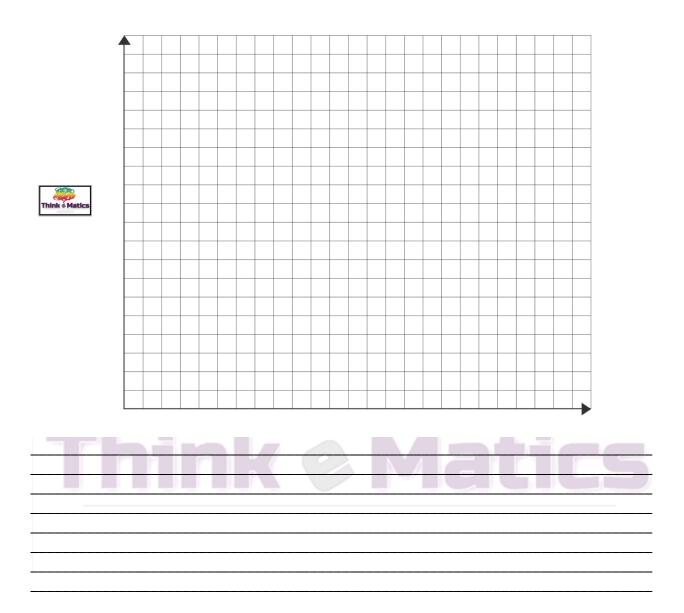
Construct a table that portrays the possible pens that Linda could construct using the barn as one side of the pen. Graph the relationship. Let (x) represent the length and (y) represent the area. Describe the shape of the graph. Why does the shape of the graph appear this way?

Length	Width	Perimeter	Area

BOTL: EXTEND YOUR THINKING 3 continued

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BOTL: EXTEND YOUR THINKING 3 continued

If Linda wants to construct a pen that has the largest space for Bruno to run and play, what should be the dimensions of this pen? Explain how you ascertained your answer.

Analyze the areas of the largest pen with the barn and without the barn. What do you notice? Will this always be true regardless of how much fencing Linda starts out with? Explain.

Higher Order Thinking Questions

Level One: What is the rule for finding the rectangle that will produce the largest area when dealing with a fixed perimeter? Explain how you determined your rule.

What is the "big idea" that you discovered while completing this performance task?

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