

John Kaminsky

From: John Kaminsky
Sent: Thursday, September 8, 2022 2:16 PM
To: Annika Wanagel-Rojas
Subject: RE: Homework question

Hello Annika,

Sure. Since we are building a rectangular pen, we know the area is length times width. The 200 feet of fencing gives us the perimeter of the fence itself. We can use that fact to solve for say the length in terms of the width. Plug that into the area equation and the area in terms of just the width. This equation turns out to be a parabola.

I am in my office right now if you want to discuss.

Sincerely,
Dr. Kaminsky

From: Annika Wanagel-Rojas <awanagel-rojas@eastsideprep.org>
Sent: Thursday, September 8, 2022 2:12 PM
To: John Kaminsky <jkaminsky@eastsideprep.org>
Subject: Homework question

Dear Mr. Kaminsky,

I'm not sure how to do this problem: A rectangular pen is to be built using 200 feet of fencing. Create a quadratic equation whose input is the length of one side of the pen and whose output is the total area of the pen. Find the vertex of this parabola and explain its importance in the context of this problem. Any way you can help?

Thanks,
Annika Wanagel-Rojas