Name:_____   Date:_____
PCH Intro to Modeling with Functions   Ms. Loughran

1. My dachshund, Daisie, needs a place to play. I purchased 14 feet of fencing to use to make her an enclosed rectangular play area. Express the area as a function of a single variable.

2. Now that Daisie has a place to play, she needs to have a place to keep her toys. I want to make an open-top box so that she can reach in and get the toys out herself. I want to use a 72-by-28 inch sheet of tin to make this box. I will cut congruent squares of side length x from the corners of the sheet of tin and bend up the sides to form this box. Express the volume of this box as a function of x.