

Calculating Area of Irregular Shapes using Google SketchUp & Excel (or Calculator)

Let's say you want to be the next Tiger Woods or Michelle Wie, who are famous (and rich!) golfers. To reach your potential, you want to construct a practice green in the back yard. Your parents have agreed to this only if they can closely estimate the area of your yard that will be used, how much sod or grass seed will be needed to cover this area, and how much it will cost to fertilize the area. Your parents also insist that the putting surface can only take up 25% of the 40' x 40' back yard. You want to design the coolest and largest green shape that you can and still keep your parents happy. How can you design your practice area, follow the guidelines and reach golf star status??? Follow along...

1. Once you are in your group of 2 people, make sure that one of the laptops in the group has Google SketchUp installed. If none of you do, please see one of your instructors for an installation disk. You should all have Microsoft Excel already.
2. First, we need to accurately represent the back yard. In SketchUp, grab the Rectangle tool from the toolbox or press R on your keyboard. Draw a square shape that is 40 feet square. The Dimensions information in the bottom right hand side of the window will tell you the dimensions of your square. You can easily get the precise size by typing the following **just after drawing** your square, 40',40' and pressing return (enter).
3. Calculate the area of the backyard. The formula is $a = l * w$. Enter in your calculated area here: _____ . Remember that your practice green has to be less than 25% of this number.
4. To make drawing the green easier, let's delete the blue "surface" of the shape that we just drew. Hit the space bar or click on the Select tool at the top left of the toolbox. Click once on the blue part of the shape to select it, then press Delete on your keyboard. You should be left with an empty rectangle to represent the size of the backyard.

