PROJECT 2: THE SOLAR PANELS

Your client wants to build a solar panel on the roof of his house. You are being asked to calculate the dimensions of the solar panel that will be optimal for the roof, and to calculate the cost of this project based on the following description.

Each solar "slab" consists of a series of sixty 8" x 8" squares in a 6 x 10 rectngular array. Your client wants to install a number of solar slabs on one side of his roof as pictured below, leaving as close to a 2-foot border all the way around.

Each solar slab costs $375, and the labor cost is $50 for each slab. The side of the roof where the panels will be installed measures 13 feet by 36 feet.

If the client's budget is $10,000, can his roof be equipped with solar panels as he wants?

If it cannot, then determine an alternative plan that would allow the project to proceed in a different way.

Image Credit: http://cdn.zmescience.com/wp-content/uploads/2015/05/bigstock-Solar-Panel-On-A-Red-Roof-14532428.jpg