A small, open-top packing box, similar to a shoebox without a lid, is three times as long as it is wide, and half as high as it is long. Each square inch of the bottom of the box costs $0.008 to produce, while each square inch of any side costs $0.003 to produce.

Write a function for the cost of the box described above.

Using this function, determine the dimensions to the nearest hundredth of a box that would cost $0.69 to produce.