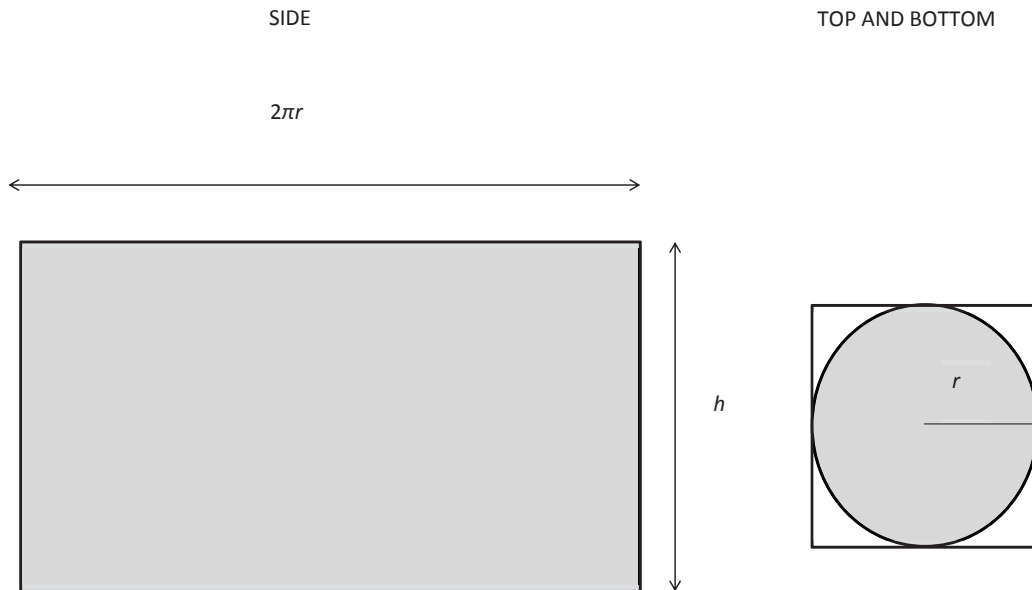


9. (12 points) A cylindrical can of volume 250 cubic centimeters is to be made from aluminum. The side is made from a thin sheet which costs 0.2 cents per square centimeter. The top and bottom of the can is made from a thicker sheet which costs 0.4 cents per square centimeter. Moreover, since the top and the bottom are circles, they have to be cut from square pieces. The wasted area between the circle and the square can be sold back to the aluminum supplier at a price of 0.1 cent per square centimeter to be recycled. What are the radius r and height h of the minimal cost can?

Give your answer in exact form and as a decimal approximation. Note: Given a cylinder of radius r and height h , the volume is $V = \pi r^2 h$.



Use this page if you need more space on #9.