

Group Work

2017/03/14

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1. (10 points) Suppose a paraboloid cup is inscribed in a hemisphere of radius R inches. The volume of the paraboloid is given by $\frac{1}{2}\pi r^2 h$. For what values of the parameter r and h is the volume of the cup maximized?

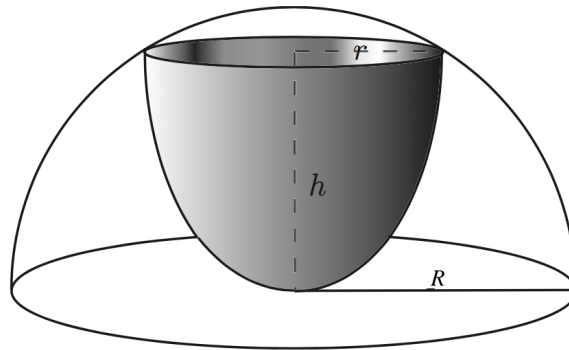


Figure 1: Paraboloid