

Quiz 16 (Problems)

1. Use polar coordinates to evaluate the integral $\iint_R x\sqrt{x^2 + y^2} \, dA$ where R is the region bounded by the semicircle $x = \sqrt{36 - y^2}$.

Quiz 16 (Answers)

1. (Math-252 Quiz 16)

$$\int_{-\frac{\pi}{2}}^{\frac{\pi}{2}} \int_0^6 r \cos \theta \sqrt{r^2} r \, dr \, d\theta = 648$$