

## Areas + Volumes Quiz

1. Let  $f(x) = x^{3/2}$  and  $g(x) = x^{2/3}$ . Find the area between these two curves.
2. Find the area between  $f(x) = x^2$  and  $g(x) = x^4 - x^2$  when  $x$  is positive.
3. Find the volume of the solid of revolution created by rotating the region bounded by  $y = 1, y = \sqrt{\sin x}$ , when  $0 \leq x \leq \frac{\pi}{2}$  about the  $x$ -axis.