Name: _____

Volume: The Disk Method

Exercise 1: let R be the region between the graph of the function and the x axis on the given interval. Find the volume V of the solid obtained by revolving R about the x axis.

1. $f(x)=x^2;\ [0,1]$
2. $f(x)=x^2;\ [1,2]$
3. $g(x)=\sqrt{3-x^2};\ [0,\sqrt{3}]$
4. $f(x)=\sqrt{\cos x};\ [0,\pi/6]$
5. $g(x)=\sec x;\ [-\pi/4,0]$
6. $f(x)=\sqrt{x\sin x};\ [0,\pi]$
7. $f(x)=\sqrt{x}e^x;\ [0,1]$
8. $g(x)=\sqrt{\ln x};[1,2]$
9. $g(x)=x(x^3+1)^{1/4};\ [1,2]$
10. $f(x)=(1+x^2)^{1/4};[0,1]$