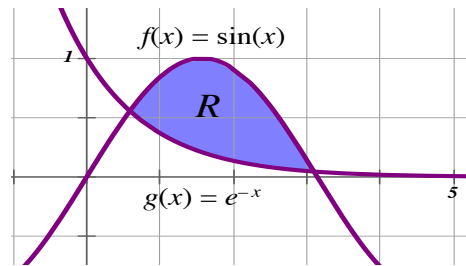


CALCULUS AB CH.7 WS #3

Name _____

1) Given the enclosed region R between $f(x) = \sin x$ and $g(x) = e^{-x}$, find each of the following:

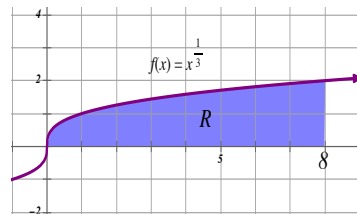


a) Volume rotated about $y = 10$

b) Volume rotated about $x = -4$

c) Volume of the solid whose base is the region R
whose vertical cross sections are equilateral triangles.

d) Volume rotated about $y = -20$



2) Given the enclosed region R between $f(x) = \sqrt[3]{x}$ and the x -axis, find each of the following:

a) Area of enclosed region (vertical cross sections)

b) Area of enclosed region (horizontal cross sections)

c) Volume of the solid whose base is the region R
whose vertical cross sections are squares

d) Volume of the solid whose base is the region R
whose horizontal cross sections are semicircles.