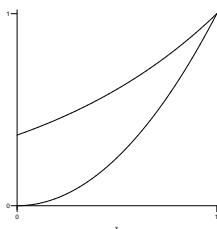


PRACTICE3

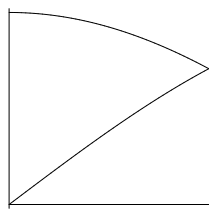
Name _____ Section _____

Draw a volume element on each picture then determine the volume of the solid formed when rotating the region bounded by the curves:

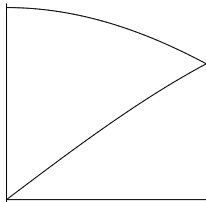
1. $f(x) = e^{x-1}$ and $g(x) = x^2$ about the x -axis. ($0 \leq x \leq 1$)



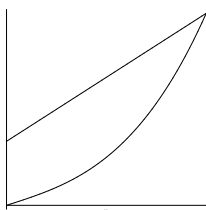
2. $f(x) = \cos x$ and $g(x) = \sin x$ about the x -axis. ($0 \leq x \leq \pi/4$)



3. $f(x) = \cos x$ and $g(x) = \sin x$ about the y -axis.



4. $f(x) = 2x^3 + x$ and $g(x) = 2x + 1$ about the y -axis.



5. $f(x) = x^3 - 3x^2 + 3x$ and $g(x) = \frac{1}{8}x^4$ about the y -axis.

