

Math 1B

Midterm 2 Volume Review

Let P be the region bounded by $y = 6x - x^2$ and $y = x + 4$.

Let Q be the region bounded by $y = 2x^2$ and $y = x^2 + 4$.

Let R be the region bounded by $x = 0$, $y = x - 1$ and $y = 2 - 2x$.

Let S be the region bounded by $x = y^2 - 1$ and $y = x - 1$.

Let T be the region bounded by $y = e^x$, $y = 2$ and $x = 0$.

Let U be the region bounded by $y = 2 \ln x$, $y = 0$, $x = 0$ and $y = 2$.

Complete the following tables.

For maximum effectiveness, you should create all the integrals associated with one region, fnInt them to check for correctness against the answers below, fix your errors, then move on to the next region.

After you have done this for all regions, you should randomly select some of the integrals you created (at least one per region and type (shell/washer)), perform the manual integration, check and correct.

		VOLUME OF SOLID IF REGION IS REVOLVED AROUND					
REGION	AREA	$x = -3$	$x = 5$	$y = -1$	$y = 10$		
P							
Q							
REGION	AREA	$x = 0$	$x = -2$	$x = 3$	$y = -1$	$y = 2$	$y = 3$
R							
S							
T							
U							

	VOLUME IF REGION IS BASE OF SOLID AND CROSS SECTIONS PERPENDICULAR TO X-AXIS ARE		
REGION	SQUARES	SEMICIRCLES	EQUILATERAL TRIANGLES
P			
Q			
R			
T			