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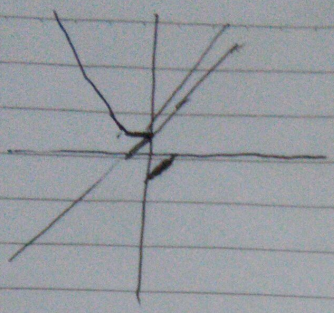
Date

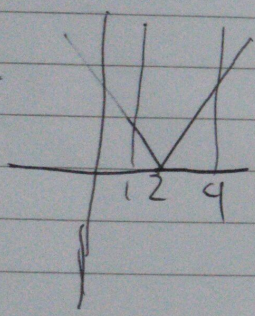
1)



Intersection: $x+1 = -x+1$

$2x+1 = x+1$

2)



$V_1 = \pi\int_1^4 |x-2|\,dx = \pi\int_1^4 (x-2)\,dx$

$= \pi\left[\frac{1}{2}x^2 - 2x\right]_1^4 = (8-8) - \left(\frac{1}{2}-2\right)\pi$

$= 6\pi - \left(+\frac{3}{2}\pi\right)$

$= 6\pi -$

$V_1 = \pi\int_2^4 |x-2|\,dx = \pi\int_2^4 (x-2)\,dx = \pi\int_2^4 (x-2)\,dx$

$= \pi\left[\frac{1}{2}x^2 - 2x\right]_2^4 = (8-8) - (2-4)\pi$

$= 8\pi + 2\pi$

$= 10\pi$

$V_2 = \pi\int_1^2 |x-2|\,dx = \pi\int_1^2 (2-x) = \pi\int_1^2 (2-x)\,dx$

$= \pi\left[2x - \frac{1}{2}x^2\right]_1^2 = (4-2) - \left(2-\frac{1}{2}\right)\pi$

$= 4\pi - \frac{3}{2}\pi$

$= \frac{5}{2}\pi$