

Due **Tuesday** 5 Dec, in reci. Show your work.

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1. Consider the region bounded by $y = x^2$, $y = -x^3$ and $x = 1$, revolved around the vertical axis $x = -2$. (Ignore the region bounded only by $y = x^2$ and $y = -x^3$ between $x = 0$ and $x = -1$.)
 - (a) Sketch the region, including intersection points and the axis of revolution.
 - (b) Set up (but do not evaluate) the integral(s) for the volume of revolution using the washer method.
 - (c) Set up (but do not evaluate) the integral(s) for the volume of revolution using the shell method.