QUIZ 5 - MATH 152 Friday, October 16

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Read each problem **very carefully** before starting to solve it. Each problem is worth 5 points. It is necessary to show **all** your work. Correct answers without explanations are worth 0 points. GOOD LUCK!!

1. Compute the surface area of the solid resulting from revolving the graph of $y = x^3$ over the interval $[0, 2]$ around the x-axis.

2. Find the fluid pressure on the side of the plate shown, that is submerged in a fluid of density ρ. The top of the plate is level with the fluid surface. The edges of the plate are the curves $y = x^{1/3}$ and $y = -x^{1/3}$.