Problem 1

Find the area between $y = x^2 - 4$ and $y = x + 3$ from $x = -1$ to $x = 2$.

Problem 2

Find the area of the region bounded by $y = x^2 - 4$ and $y = x + 2$.

Problem 3

Find the area (in the first quadrant) bounded by $y = \frac{4}{x^3}$, $y = \frac{x}{4}$ and $y = 4x$.

Problem 4

Find the area between $y = x^2$ and $y = 1$ on $[-1, 2]$. (Hint: one way to solve this is to use absolute value... another hint: the answer does **not** come from the integral $\int_{-1}^{2} x^2 - 1 \, dx$ or $\int_{-1}^{2} 1 - x^2 \, dx$)