

2. [10 points] Determine if each of the following integrals diverges or converges. If the integral converges, find the exact answer. If the integral diverges, write "DIVERGES." Show ALL work and use proper notation. Calculator approximations will not receive credit.

a. [5 points] $\int_0^2 \frac{3}{x^{1/3}} dx$

b. [5 points] $\int_0^2 \frac{e^{-1/x}}{x^2} dx$