

4. [7 points] **Compute** the value of the following improper integral if it converges.
If it does not converge, use a **direct computation** of the integral to show its divergence.
Be sure to show your full computation, and be sure to use **proper notation**.

$$\int_0^{\sqrt{8}} \frac{x}{(8 - x^2)^{1/3}} dx$$

Circle one: Diverges Converges to _____