Q1. $\int (\tanh x \ \text{sech} \ x)^3 \ dx$

Final Ans.

Q2. **Set up an integral** for the volume obtained by rotating the region enclosed by $x = y^2 - y^3$ and the y-axis about $y = 1$.

Final Ans.

Q1. $\displaystyle\int_{\pi/2}^{\pi} \sqrt{\sin x - \sin^3 x}\, dx$

Final Ans.

Q2. $\displaystyle\int \frac{x}{2^x}\, dx$

Final Ans.