

Problem statement Compute:

$$\text{a) } \int_0^{\frac{\pi}{2}} \left(\int_y^{\frac{\pi}{2}} \frac{\sin x}{x} dx \right) dy \quad \text{b) } \int_0^1 \left(\int_{\sqrt{y}}^1 e^{(7x^3)} dx \right) dy \quad \text{c) } \int_0^1 \left(\int_x^{x^{1/3}} \sqrt{1-y^4} dy \right) dx$$

Hint Write 'em as a double integral, then re-iterate.