

$$a) \int_0^2 x^2 dx = \frac{x^3}{3} \Big|_0^2 = \frac{8}{3}$$

$$b) \int_1^e \frac{1}{x} dx = \ln x \Big|_1^e = 1$$

$$c) \int_{-\frac{\pi}{4}}^0 \sin u du = -\cos u \Big|_{-\frac{\pi}{4}}^0 = -1 + \frac{\sqrt{2}}{2}$$