

Phys331/Homework #1

Due on Monday 18/4/2022

1) Evaluate

$$\int_0^{\infty} e^{-x} \delta(\cos x) dx$$

2) Let S be a closed surface that encloses a volume V , evaluate

$$\oint_S \vec{r} \cdot d\vec{a}$$

*Please also solve the following problems from the textbook: 17/18, 20/20, 33/33, 34/36 and 40/42. Handing in these textbook problems is not required.