Problem statement Evaluate the iterated integral $\int_0^2 \int_{-x}^{x} (2+x)\, dy\, dx$ in three ways:

a) Directly.

b) By reversing the order of integration (that is, converting to a double integral and then expressing the double integral as one or a sum of iterated integrals in $dx\, dy$ order) and finally, computing the result.

c) Changing to an integral in polar coordinates and computing the result.