

Match the integral with the appropriate region of integration.

(a) R_1 : The triangle with vertices $(0, 0)$, $(2, 0)$, $(0, 1)$.

(b) R_2 : The triangle with vertices $(0, 0)$, $(0, 2)$, $(1, 0)$.

(c) R_3 : The triangle with vertices $(0, 0)$, $(2, 0)$, $(2, 1)$.

(d) R_4 : The triangle with vertices $(0, 0)$, $(1, 0)$, $(1, 2)$.

$$(i) \int_0^1 \int_0^{2-2x} f(x, y) dy dx$$

$$(ii) \int_0^1 \int_0^{2-2y} f(x, y) dx dy$$

$$(iii) \int_0^1 \int_0^{2x} f(x, y) dy dx$$

$$(iv) \int_0^1 \int_{2y}^2 f(x, y) dx dy$$