$dx\,dz\,dy$ $E = \{(x,y,z) \mid y \in [0,4] \wedge z \in [0, \frac{4-y}{2}] \wedge x \in [-\sqrt{y}, \sqrt{y}]\}$

(d) $\int_0^4 \int_0^{\frac{4-y}{2}} \int_{-\sqrt{y}}^{\sqrt{y}} f(x,y,z)\, dx\,dz\,dy$

Type 3

$dy\,dz\,dx$ $E = \{(x,y,z) \mid x \in [-2,2] \wedge z \in [0, \frac{4-x^2}{2}] \wedge y \in [x^2, 4-2z]\}$

(e) $\int_{-2}^{2} \int_0^{\frac{4-x^2}{2}} \int_{x^2}^{4-2z} f(x,y,z)\, dy\,dz\,dx$

$dy\,dx\,dz$ $E = \{(x,y,z) \mid z \in [0,2] \wedge x \in [-\sqrt{4-2z}, \sqrt{4-2z}] \wedge y \in [x^2, 4-2z]\}$

(f) $\int_0^2 \int_{-\sqrt{4-2z}}^{\sqrt{4-2z}} \int_{x^2}^{4-2z} f(x,y,z)\, dy\,dx\,dz$

$a = b = c = d = e = f$

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(55) $\int_0^1 \int_y^1 \int_0^y f(x,y,z)\, dz\,dx\,dy$

$z \in [0,y]$ $x \in [y,1]$ $y \in [0,1]$

$z = y$ $x = 1$ $x = y$

↳ $z = x$

$dz\,dy\,dx$ $E = \{(x,y,z) \mid x \in [0,1] \wedge y \in [0,x] \wedge z [0,y]\}$

(a) $\int_0^1 \int_0^x \int_0^y f(x,y,z)\, dz\,dy\,dx$

Type 2

$dx\,dy\,dz$ $E = \{(x,y,z) \mid z \in [0,1] \wedge y \in [z,1] \wedge x \in [y,1]\}$

(b) $\int_0^1 \int_z^1 \int_y^1 f(x,y,z)\, dx\,dy\,dz$