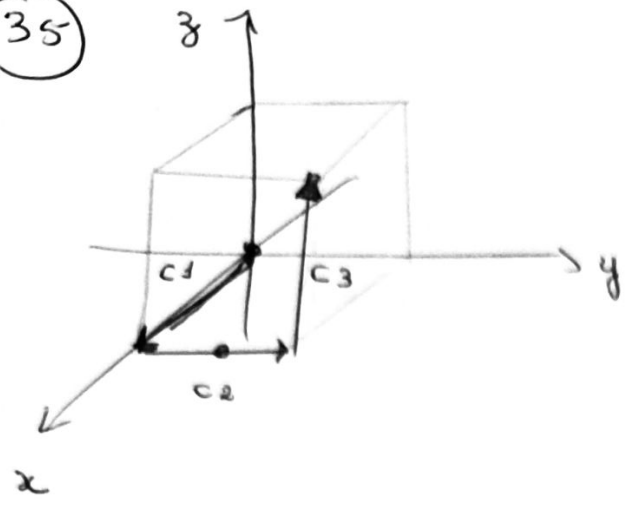


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OBS:

$$\int_C = \int_{C_1} + \int_{C_2} + \int_{C_3}$$

$$C_1: r(t) = \langle t, 0, 0 \rangle$$

$$0 \leq t \leq 1$$

$$C_2: r(t) = \langle 1, t, 0 \rangle$$

$$0 \leq t \leq 1$$

$$C_3: r(t) = \langle 1, 1, t \rangle$$

$$0 \leq t \leq 1$$

$$\int_C x^2 z dx - y x^2 dy + 3 dz$$

$$\int_{C_1} t^2 \cdot 0 \frac{d[t]}{dt} dt - 0 + 0 = 0$$

$$\int_{C_2} 1^2 \cdot 0 - t \cdot 1^2 dt \Rightarrow - \int_0^1 t dt = -\frac{1}{2}$$

$$\int_{C_3} 1^2 \cdot 1 \cdot 3 dt \Rightarrow \int_0^1 3 dt = 3$$

$$0 - \frac{1}{2} + 3 = \frac{-1 + 6}{2} = \frac{5}{2} //$$