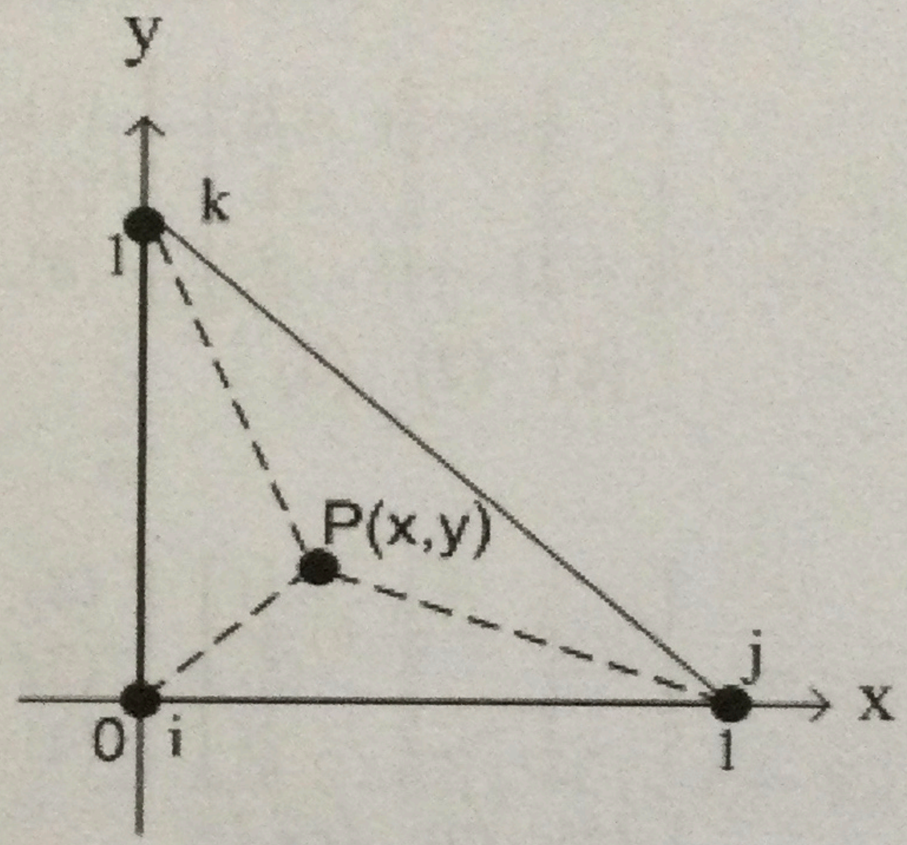
Exercise 3.2.1 *A triangle is given in the following figure. (1) Choose* $P(x,y) = (\frac{1}{2}, \frac{1}{2})$ *and find* $L_i(P)$, $L_j(P), L_k(P)$. *(2) Choose* $P(x,y) = (\frac{1}{3}, \frac{1}{3})$ *and find* $L_i(P) \cdot L_j(P) \cdot L_k(P)$. *(3) Choose* $P(x,y) = (\frac{1}{4}, \frac{1}{4})$ *and find* $L_i^3(P) \cdot L_j^2(P) \cdot L_k^1(P)$.



Exercise 3.2.2 *Show that Eq. (3.2.15)*

$$\int_0^1 \int_0^{1-L_j} (1 - L_j - L_k) L_j L_k |J| dL_k dL_j = 2S \frac{1}{5!}.$$