

Probabilità e Statistica - 27 Novembre 2007

	C1	C2	C3	C4	E1	E2
F1	0.49306	$\frac{15}{28}$	$\frac{5}{8}$	$\frac{2}{5}$	$k = \frac{3}{11}$ $f_X(x) = \frac{57}{88}x^2 I_{[0,1]}(x) + \left(\frac{3}{11}x + \frac{3}{8}\right) I_{(1,2)}(x)$ $f_Y(y) = \left(\frac{6}{11} + \frac{3}{2}y - \frac{39}{44}y^2\right) I_{(0,1)}(y)$ $P[1 < X < 5] = \frac{69}{88}$ $E\left[\frac{4}{4kX + 3Y}\right] = \frac{3}{2}$	$\mu > 125.0651$ $n \geq 40$
F2	0.76155	$\frac{5}{14}$	$\frac{2}{3}$	$\frac{3}{4}$	$k = \frac{5}{11}$ $f_X(x) = \frac{51}{88}x^2 I_{[0,1]}(x) + \left(\frac{5}{11}x + \frac{1}{8}\right) I_{(1,2)}(x)$ $f_Y(y) = \left(\frac{10}{11} + \frac{1}{2}y - \frac{21}{44}y^2\right) I_{(0,1)}(y)$ $P[1 < X < 6] = \frac{71}{88}$ $E\left[\frac{4}{4kX + Y}\right] = \frac{3}{2}$	$\mu > 123.7184$ $n \geq 36$
F3	0.85429	$\frac{3}{7}$	$\frac{7}{8}$	$\frac{2}{3}$	$k = \frac{1}{11}$ $f_X(x) = \frac{63}{88}x^2 I_{[0,1]}(x) + \left(\frac{1}{11}x + \frac{5}{8}\right) I_{(1,2)}(x)$ $f_Y(y) = \left(\frac{2}{11} + \frac{5}{2}y - \frac{57}{44}y^2\right) I_{(0,1)}(y)$ $P[1 < X < 4] = \frac{67}{88}$ $E\left[\frac{4}{4kX + 5Y}\right] = \frac{3}{2}$	$\mu > 124.7314$ $n \geq 32$
F4	0.53280	$\frac{2}{5}$	$\frac{3}{5}$	$\frac{5}{2}$	$k = \frac{4}{11}$ $f_X(x) = \frac{27}{88}x^2 I_{[0,1]}(x) + \left(\frac{4}{11}x + \frac{1}{4}\right) I_{(1,2)}(x)$ $f_Y(y) = \left(\frac{8}{11} + y - \frac{15}{22}y^2\right) I_{(0,1)}(y)$ $P[1 < X < 3] = \frac{35}{44}$ $E\left[\frac{2}{2kX + Y}\right] = \frac{3}{2}$	$\mu > 126.3729$ $n \geq 25$