

Probabilità e Statistica - 3 Settembre 2008

	C1	C2	C3	C4	E1	E2
F1	0.19766	$\frac{36}{343}$	0.77880	0.86071	$T_1 = 2\bar{X}_n$ corretto $T_1$ preferibile	$F_X(x) = \begin{cases} 0 & x < 0 \\ 1/6 x^3 & 0 \leq x < 1 \\ 5/6 x - 2/3 & 1 \leq x < 2 \\ 1 & x \geq 2 \end{cases}$ $\text{var}[X] = 443/2880$ $P\left[\frac{1}{2} \leq X \leq 4\right] = 47/48$ $E[(X + Y)^2] = 107/45$
F2	0.44038	$\frac{12}{125}$	0.60653	0.70469	$T_1 = \frac{1}{6}\bar{X}_n$ corretto $T_1$ preferibile	$F_X(x) = \begin{cases} 0 & x < 0 \\ 1/6 x^3 & 0 \leq x < 1 \\ 5/12 x - 1/4 & 1 \leq x < 3 \\ 1 & x \geq 3 \end{cases}$ $\text{var}[X] = 481/960$ $P\left[\frac{1}{2} \leq X \leq 6\right] = 47/48$ $E[(X + Y)^2] = 182/45$
F3	0.25785	$\frac{80}{729}$	0.77880	0.63763	$T_1 = \frac{1}{4}\bar{X}_n$ corretto $T_1$ preferibile	$F_X(x) = \begin{cases} 0 & x < 0 \\ 1/6 x^3 & 0 \leq x < 1 \\ 5/24 x - 1/24 & 1 \leq x < 5 \\ 1 & x \geq 5 \end{cases}$ $\text{var}[X] = 5243/2880$ $P\left[\frac{1}{2} \leq X \leq 8\right] = 47/48$ $E[(X + Y)^2] = 407/45$
F4	0.36317	$\frac{36}{343}$	0.60653	0.95123	$T_1 = \frac{3}{2}\bar{X}_n$ corretto $T_1$ preferibile	$F_X(x) = \begin{cases} 0 & x < 0 \\ 1/6 x^3 & 0 \leq x < 1 \\ 1/6 x & 1 \leq x < 6 \\ 1 & x \geq 6 \end{cases}$ $\text{var}[X] = 2681/960$ $P\left[\frac{1}{2} \leq X \leq 10\right] = 47/48$ $E[(X + Y)^2] = 557/45$