



Unitat 5. Models de probabilitat més freqüents. SOLUCIONS

1. $X \sim \text{Bernoulli}(p=2/3)$. $E(X)=2/3$ i $\text{Var}(X)=2/9$.
2. 0.22.
3. 0.01966.
4. 0.0000059.
5. (a) 0.0159. (b) 0.3585. (c) $9.5 \cdot 10^{-27}$. (d) 19 .
6. Si $p \leq 1/3$ en quadrimotor, però si $p > 1/3$ en bimotor.
7. 0.026.
8. 0.9604.
9. (a) 0.105. (b) 0.4219.
10. (a) 0.048. (b) 0.043. (c) $E(X_{(a)}) = 5.67$ i $E(X_{(b)}) = 17$.
11. 0.016.
12. (a) 0.024. (b) 0.976.
13. (a) 0.406. (b) 0.01655.
14. (a) $X \sim \text{Poiss}(2)$. (b) $X_3 \sim \text{Poiss}(6)$. (c) $X_{1/2} \sim \text{Poiss}(1)$. (d) $P(X \leq 2) = 0.6767$, $P(X_3 \geq 5) = 0.7373$, $P(X_{1/2} = 0) = 0.3679$.
15. (a) $E(X)=6$, $X \sim \text{Poiss}(6)$. (b) 0.017.
16. 0.1353.
17. 0.645.
18. (a) $2/3$. (b) $1/3$.
19. 0.29.