04-04-2019

$$F(x) = \begin{cases} 0 & x < 1 \\ 0.17 & 1 \leq x < 2 \\ 0.305 & 2 \leq x < 3 \\ 0.5 & x = 3 \\ 0.5 + \frac{1}{4}(x-3) & 3 < x \leq 5 \\ 1 & x > 5 \end{cases}$$

$$P(]-\infty, 2[) = 0.17$$

$$\stackrel{!}{=} F(2) - F(-\infty) - P(2) = 0.305 - 0.135 = 0.17 \checkmark$$

$$P([4, \infty[) = 1 - F(4) = 1 - \left(0.5 + \frac{1}{4}\right) = \frac{1}{4} \checkmark$$

$$P([2, 4[) = F(4^-) - F(2^-) = \frac{3}{4} - 0.17 = 0.58 \checkmark$$

$$P([2, 7[) = F(7^-) - F(2^-) = 1 - 0.17 = 0.83 \checkmark$$