

01-04-2019

$$F(x) = \left(\frac{1}{1+e^{-4x}} \right)^2$$

$$1) P((-\infty, -0.34]) = 0.0417141 \checkmark$$

$$2) P((0.78, \infty)) = 1 - P((-\infty, 0.78]) = 1 - 0.9172082 \\ = 0.0827912 \checkmark$$

$$3) P((-\infty, -0.34] \cap (0.78, \infty] \cup \emptyset) = P(\emptyset) = 0 \checkmark$$

$$4) R \setminus ((-\infty, -0.34] \cap (0.78, \infty] \cup (0, 0.485]) \\ = 1 - P((0, 0.485]) = 0.4855083 \checkmark$$