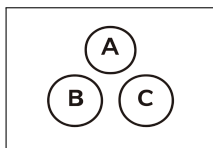


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E

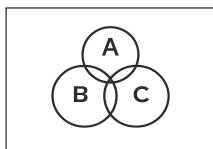


$$S(x) = P(X > x)$$

$$P(x < 0) = 1$$

$$P(0 \leq x \leq 10) = 1 - \frac{x}{10}$$

$$P(x > 10) = 0$$



$$F(x) = 1 - S(x)$$

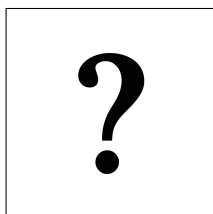
$$F(x < 0) = 0$$

$$F(0 \leq x \leq 10) = x/10$$

$$F(x > 10) = 1$$

$$P(3 < X \leq 7) = F(7) - F(3) = \frac{7}{10} - \frac{3}{10} = \boxed{0.4}$$

$$P(3 < X \leq 7) = S(3) - S(7) = \left(1 - \frac{3}{10}\right) - \left(1 - \frac{7}{10}\right) = \boxed{0.4}$$



$$F(x) = 1 - S(x)$$

$$S(x < 0) = 1$$

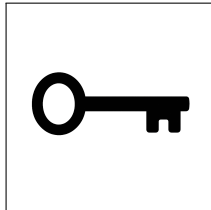
$$S(0 \leq x \leq 10) = 1 - x^2/100$$

$$S(x > 10) = 0$$

$$F(x) = ?$$

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E



$$\begin{aligned}F(x) &= 1 - S(x) \\S(x < 0) &= 1 \\S(0 \leq x \leq 10) &= 1 - x^2/100 \\S(x > 10) &= 0 \\F(x) &= ?\end{aligned}$$

$$\begin{aligned}F(x < 0) &= 1 - S(x < 0) \\F(x < 0) &= 1 - 1 \\F(x < 0) &= 0\end{aligned}$$

$$\begin{aligned}F(0 \leq x \leq 10) &= 1 - S(0 \leq x \leq 10) \\F(0 \leq x \leq 10) &= 1 - (1 - x^2/100) \\F(0 \leq x \leq 10) &= x^2/100\end{aligned}$$

$$\begin{aligned}F(x > 10) &= 1 - S(x > 10) \\F(x > 10) &= 1 - 0 \\F(x > 10) &= 1\end{aligned}$$