

Answer on Question #43458, Math, Statistics and Probability

It's known that a random variable X is distributed normally with $E(X) = 3$ and it's also known that $p(0 \leq X \leq 1) + p(5 \leq X \leq 6) = 0.6$. Find $p(5 \leq X \leq 6)$.

Solution.

$p(0 \leq X \leq 1) = p(5 \leq X \leq 6)$ because intervals $(0,1)$ and $(5,6)$ are symmetric around $X = 3$, then $p(5 \leq X \leq 6) = \frac{0.6}{2} = 0.3$.

Answer: $p(5 \leq X \leq 6) = 0.3$.