

106. Let X and Y denote the values of two stocks at the end of a five-year period. X is uniformly distributed on the interval $(0, 12)$. Given $X = x$, Y is uniformly distributed on the interval $(0, x)$.

Determine $\text{Cov}(X, Y)$ according to this model.

- (A) 0
- (B) 4
- (C) 6
- (D) 12
- (E) 24