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