

Below you'll see a table containing expectations and variances. Write the formula or shortcut for each one in the table. Where applicable, assume variables are independent.

Statistic	Shortcut or formula
$E(aX + b)$	$aE(X) + b$
$Var(aX + b)$	$a^2Var(X)$
$E(X)$	$\sum xP(X = x)$
$E(f(X))$	$\sum f(x)P(X = x)$
$Var(aX - bY)$	$a^2Var(X) + b^2Var(Y)$
$Var(X)$	$E(X - \mu)^2 = E(X^2) - \mu^2$
$E(aX - bY)$	$aE(X) - bE(Y)$
$E(X_1 + X_2 + X_3)$	$3E(X)$
$Var(X_1 + X_2 + X_3)$	$3Var(X)$
$E(X^2)$	$\sum x^2P(X = x)$
$Var(aX - b)$	$a^2Var(X)$