

## expectation-rv-add-squared<sup>11,40</sup>

$\forall p:\text{FinProbSpace}, n:\mathbb{N}, X, Y:\text{RandomVariable}(p;n).$

$E(n;(x.x * x) \circ X + Y)$

$=$

$((E(n;(x.x * x) \circ X) + (2 * E(n;X * Y))) + E(n;(x.x * x) \circ Y))$

$\in \mathbb{Q}$