$$\diamondplus$$

Product Under Independence

1   Why

TODO

2   Result

Proposition 1. *The expectation of the product of two independent random variables is the product of their expectations.*

Proof. Let f, g be two independent random variables. We want to show

$$\mathsf{E}\, fg = \mathsf{E}\, f\, \mathsf{E}\, g.$$

$\square$