

## Numerical fallback

The Legendre relation is a relation among the elliptic integrals of the first ( $K$ ) and second ( $E$ ) kinds, given by

$$E(k^2)K(1 - k^2) + E(1 - k^2)K(k^2) - K(k^2)K(1 - k^2) = \frac{\pi}{2} \quad \blacksquare \quad (1)$$

Unfortunately, `sympy` doesn't know how to automatically simplify it, so `qed` cannot analytically determine its validity. Nevertheless, when we typeset it, we still got a passing badge. That's because `qed` falls back to numerical evaluation automatically.