Financial Mathematics
The Triangular Central Limit Theorem

Let $W_1^{(1)}$ be a binary PCRV, with
    uptick/downtick probabilities: $p^{(1)}, q^{(1)}$

Let $W_1^{(2)}, W_2^{(2)}$ be iid binary PCRVs, with
    uptick/downtick probabilities: $p^{(2)}, q^{(2)}$

Let $W_1^{(3)}, W_2^{(3)}, W_3^{(3)}$ be iid binary PCRVs, with
    uptick/downtick probabilities: $p^{(3)}, q^{(3)}$

etc., etc., etc.

$\forall$integers $n \geq 1$, note that $p^{(n)} + q^{(n)} = 1$ and
    let $X^{(n)} := W_1^{(n)} + \cdots + W_n^{(n)}$.

Say $p^{(n)} \to 0.05$,
  $\mathsf{E}[X^{(n)}] \to 0.01$, $\mathsf{SD}[X^{(n)}] \to 0.45$, as $n \to \infty$.

    Compute $\lim_{n \to \infty} \mathsf{E}[(e^{2X_n} - 3)_+]$.