$$|C| \le \frac{-\lambda v}{d-\lambda} = \frac{\binom{n}{k}\binom{n-k-1}{k-1}}{\binom{n-k}{k}+\binom{n-k-1}{k-1}}$$

$$v = \binom{n}{k}$$

$$d = \binom{n-k}{k}$$

$$\lambda = -\binom{n-k-1}{k-1}$$

代入

$\binom{n-k-1}{k-1} = \frac{k}{n-k}\binom{n-k}{k}$ を踏まえつつ展開

$$= \frac{\frac{k}{n-k}\binom{n-k}{k}\binom{n}{k}}{\binom{n-k}{k}(1+\frac{k}{n-k})} = \frac{\frac{k}{n-k}\binom{n}{k}}{\frac{n}{n-k}} = \frac{k}{n}\binom{n}{k} = \binom{n-1}{k-1}$$