Understanding the binomial distribution

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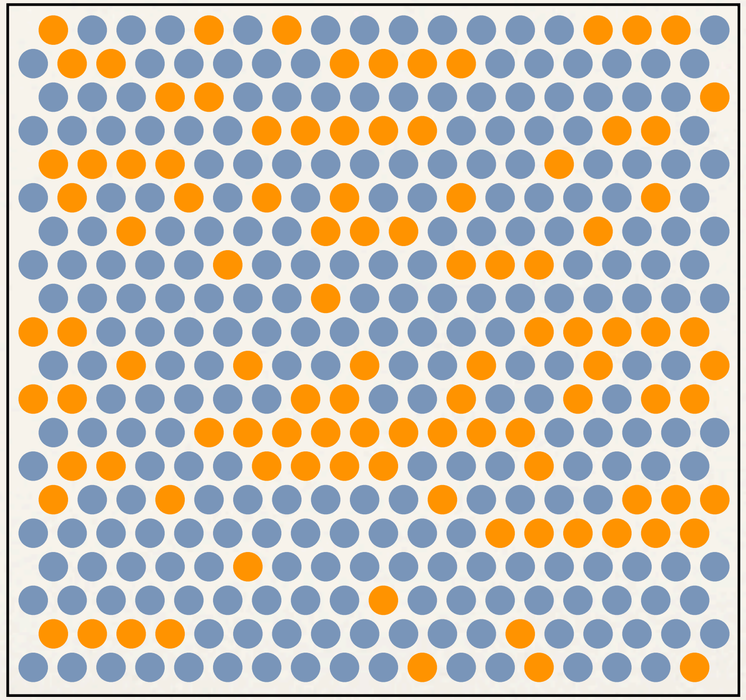
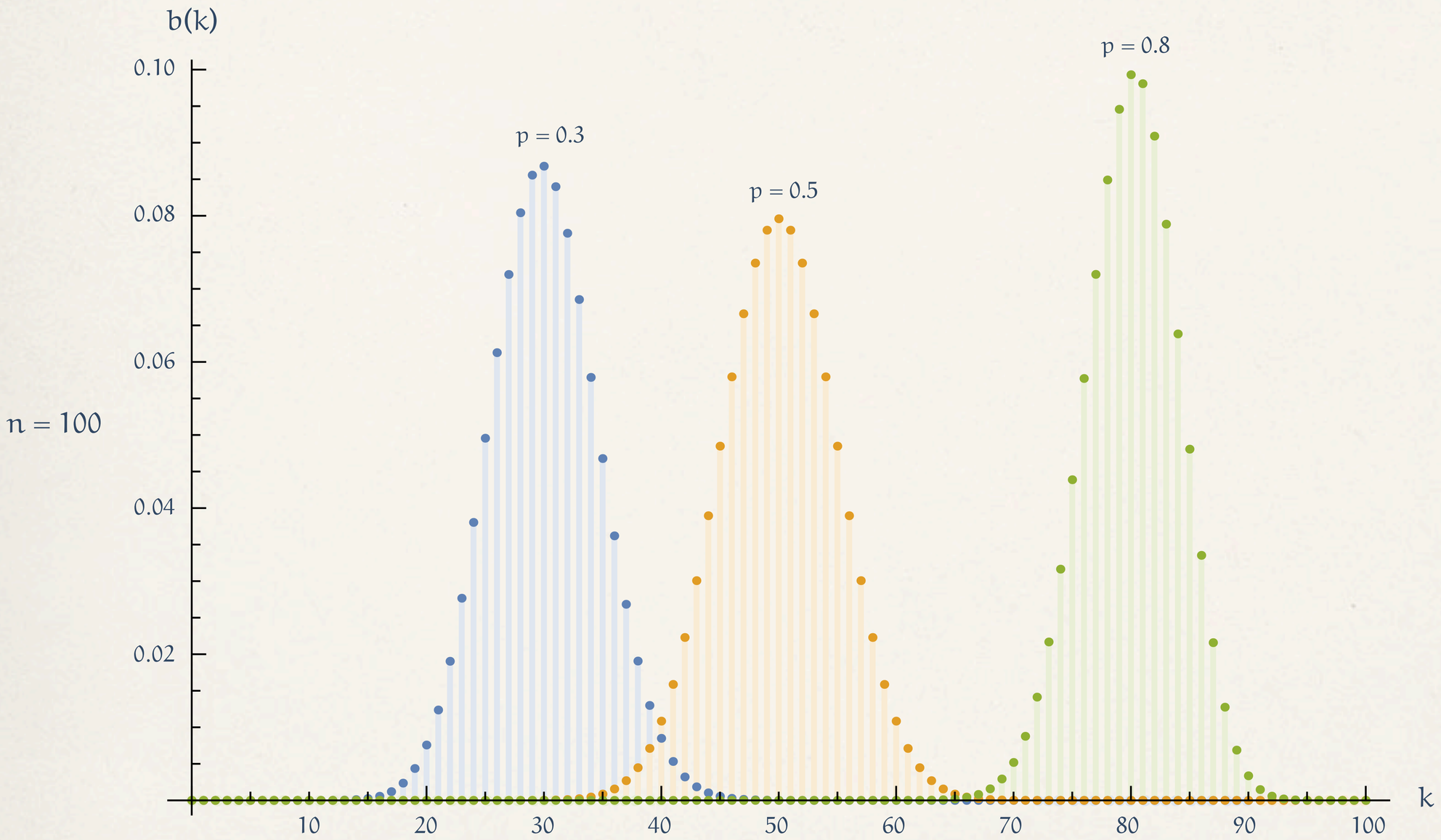


$$b(k) = b_n(k;p) = \binom{n}{k} p^k q^{n-k} \qquad (k = 0, 1, \ldots, n)$$



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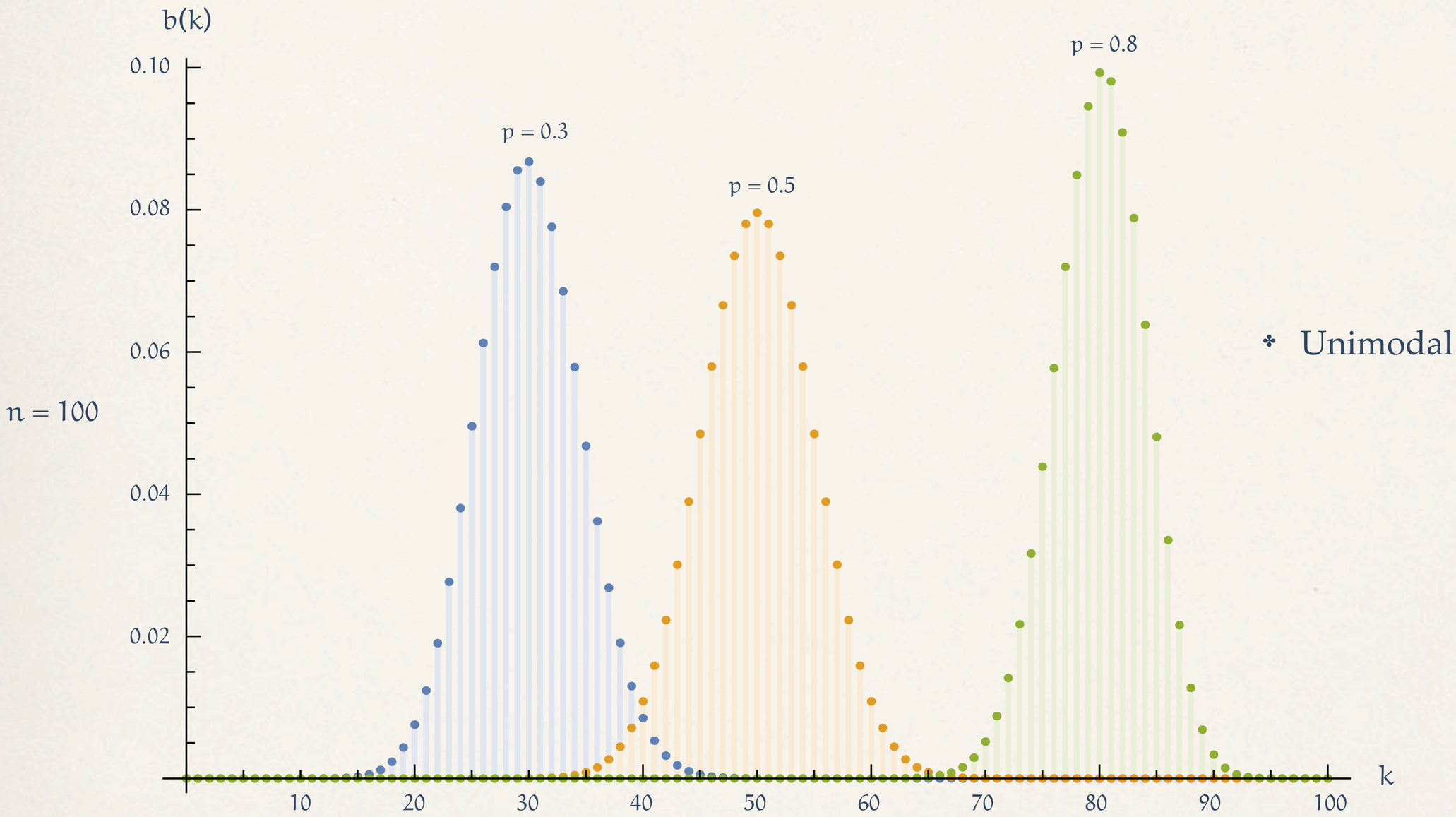
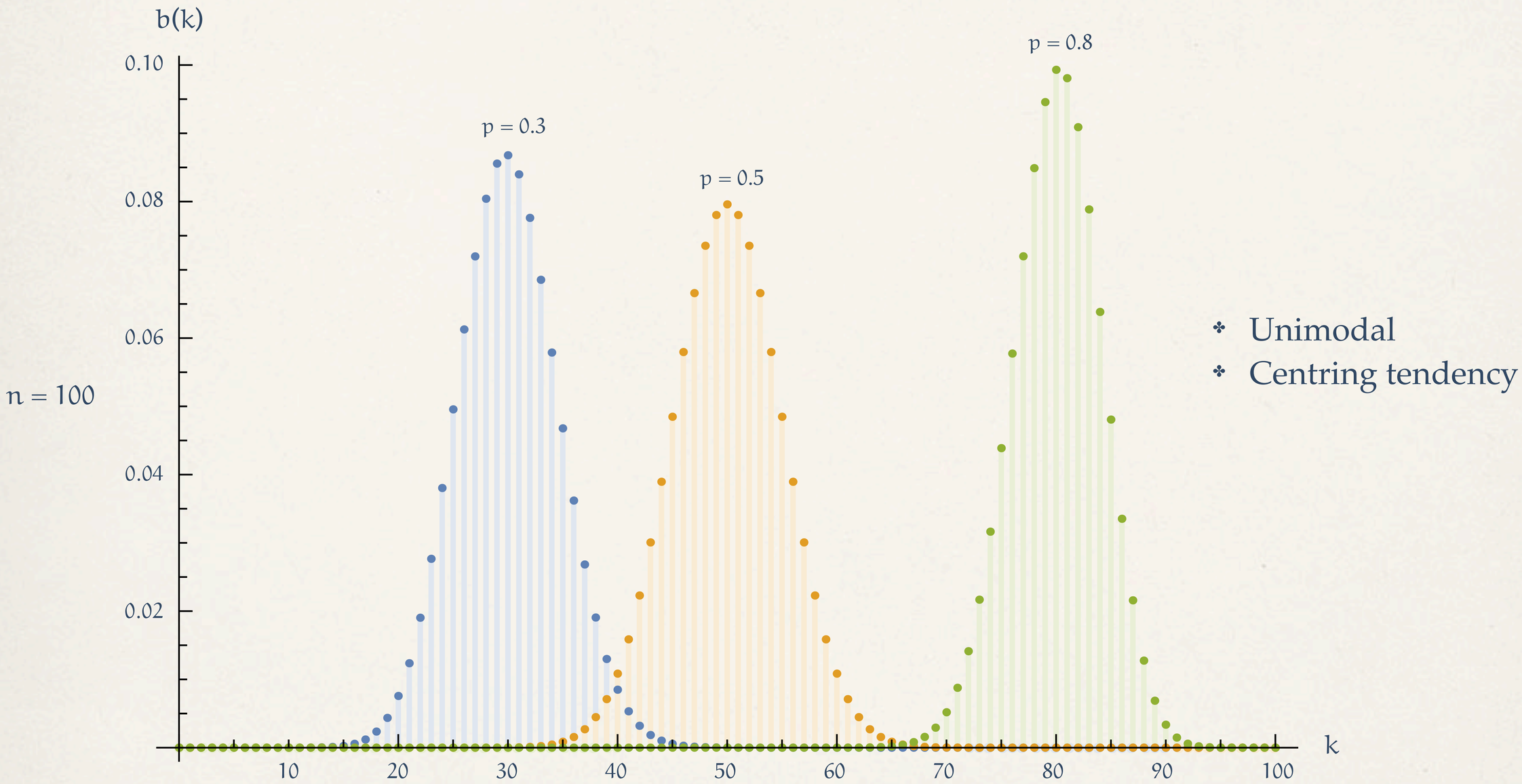


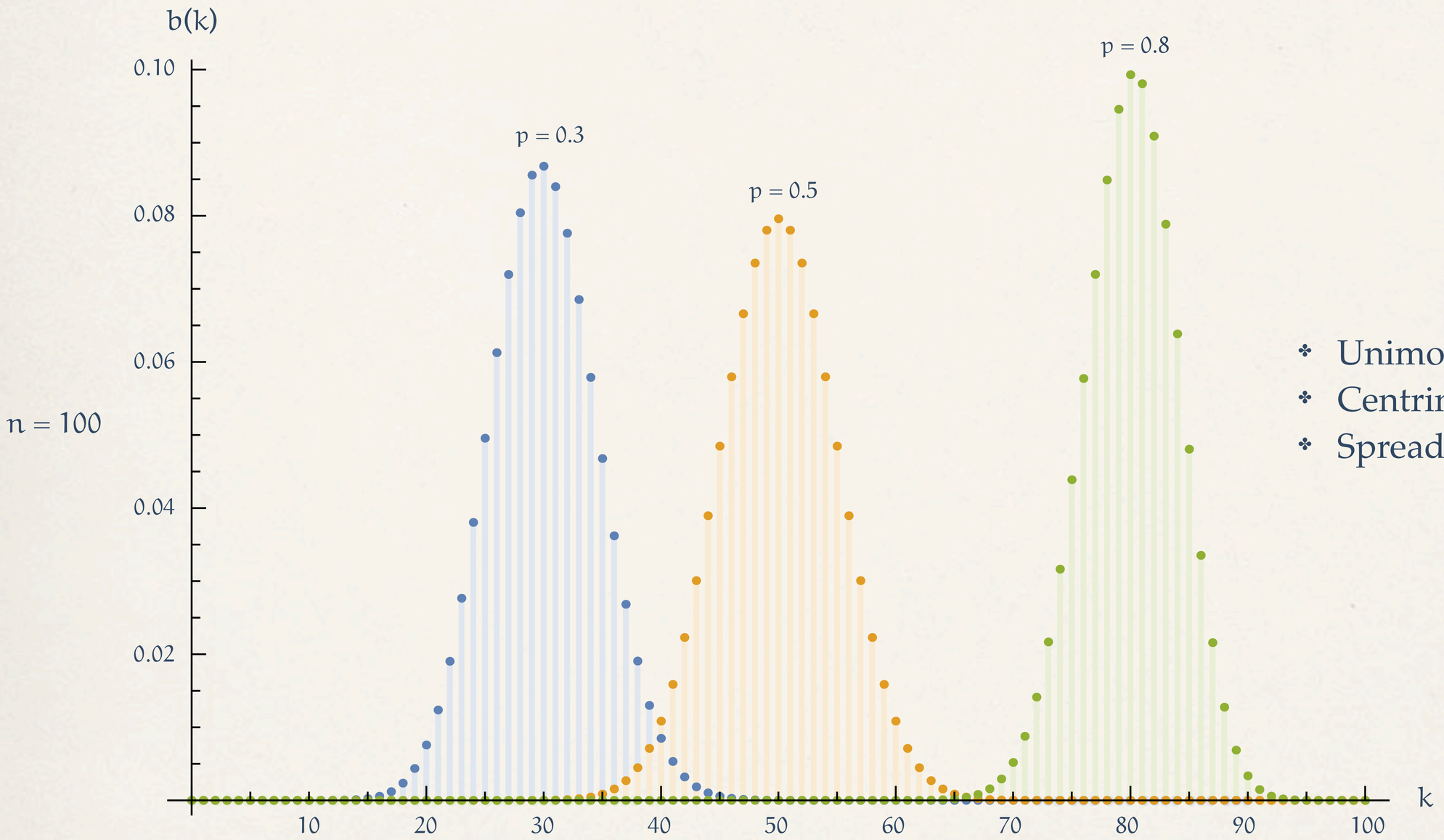
- Unimodal

$$b(k) = b_n(k;p) = \binom{n}{k} p^k q^{n-k} \qquad (k = 0, 1, \ldots, n)$$



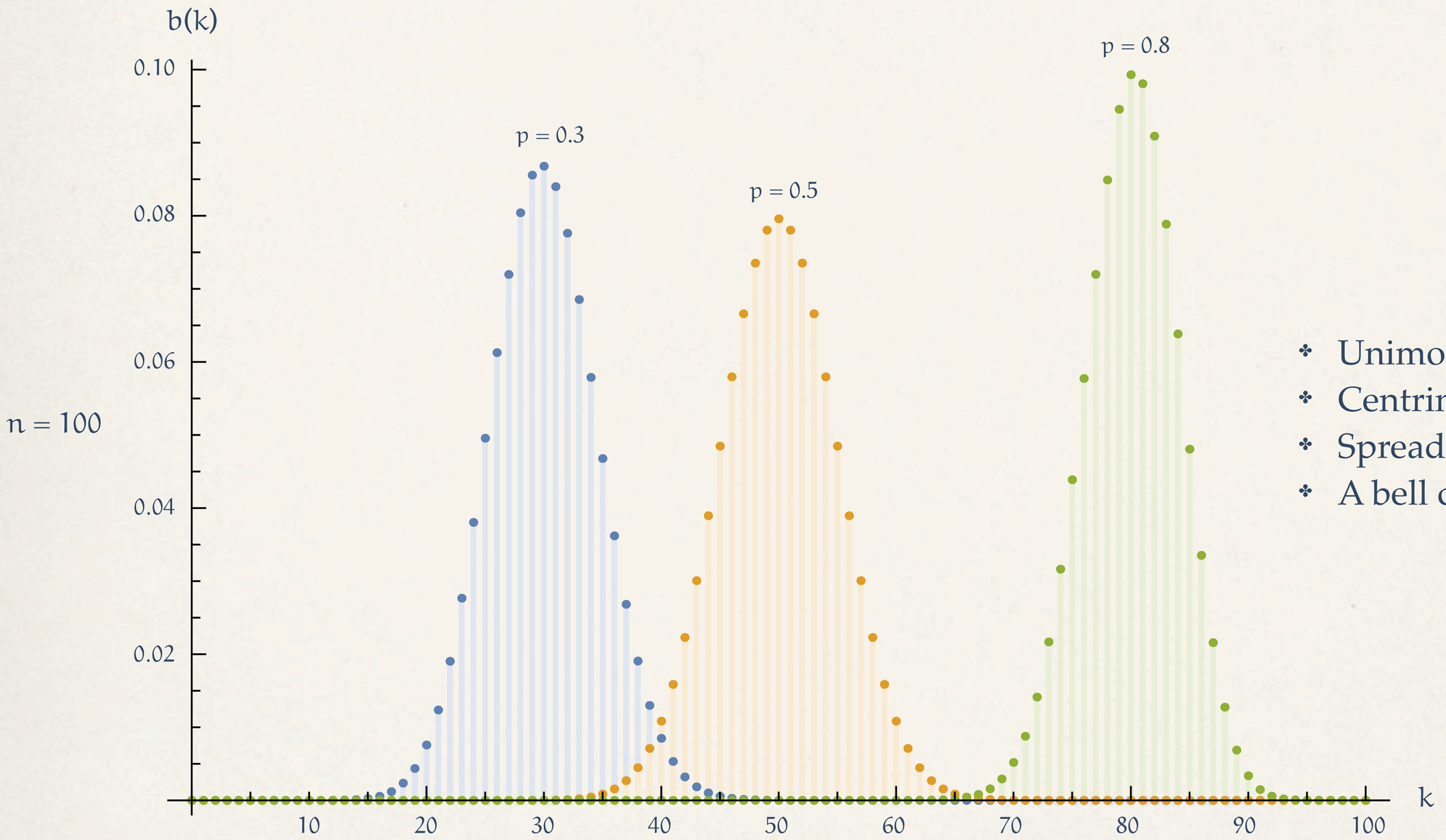
- Unimodal
- Centring tendency

$$b(k) = b_n(k;p) = \binom{n}{k} p^k q^{n-k} \qquad (k = 0, 1, \ldots, n)$$



- Unimodal
- Centring tendency
- Spread around the centre

$$b(k) = b_n(k;p) = \binom{n}{k} p^k q^{n-k} \qquad (k = 0, 1, \ldots, n)$$



- Unimodal
- Centring tendency
- Spread around the centre
- A bell curve emerges