**Distribution Approximations**

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| **Approximation** | **Conditions** |
| **Normal distribution as approximation to the binomial**  continuity correction factorIf X ~ B(n, p) and if n is large and/or p is close to ½, then X ~ N(np, npq) approximately.  Include continuity correction | np > 5  nq > 5  p ≈ ½ |
| **Poisson distribution as approximation to the binomial**  If X ~ B(n, p) and if n is large and p is small, then X ~ Po(np) approximately. | n > 50  np < 5 |
| **Normal distribution as approximation to the Poisson**  If X ~ Po(λ) and if λ is large, then X ~ N(λ, λ) approximately.  Include continuity correction | λ >15 |