## Binomialverteilung und Intervalle

$P(X=k)=\binom{n}{k} \cdot p^{k} \cdot(1-p)^{n-k}$
$P(X \leq n)=\sum_{k=0}^{n}\binom{n}{k} \cdot p^{k} \cdot(1-p)^{n-k}$
$P(X \leq a)=\sum_{k=0}^{a}\binom{n}{k} \cdot p^{k} \cdot(1-p)^{n-k}$
$P(X \geq a)=\sum_{k=a}^{n}\binom{n}{k} \cdot p^{k} \cdot(1-p)^{n-k}$
$P(a \leq X \leq b)=\sum_{k=a}^{b}\binom{n}{k} \cdot p^{k} \cdot(1-p)^{n-k}$

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$P(X \leq a)=\sum_{k=0}^{a}\binom{n}{k} \cdot p^{k} \cdot(1-p)^{n-k}$
$P(X \geq a)=\sum_{k=a}^{n}\binom{n}{k} \cdot \mathbf{p}^{k} \cdot(1-p)^{n-k}$
$P(a \leq X \leq b)=\sum_{k=a}^{b}\binom{n}{k} \cdot p^{k} \cdot(1-p)^{n-k} 0 \quad a \quad b \quad n$

$\mu=$
$\sigma=$

