## The binomial random variable

MathsNET
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- Draw a tree diagram that illustrates the outcomes that could be obtained from three bernoulli trials
- Illustrate on your tree diagrams, which outcomes correspdond to the $X=0, X=1, X=2$ and $X=3$ outcomes for a Binomial random variable.
- Hence, calculate the probabilities $P(X=0), P(X=1), P(X=2)$ and $P(X=3)$ where $X$ is a binomial random variable
- Write out the probability mass function for a binomial random variable with paraemter $p$ and number of trials $N$.


## The binomial random variable

- How many ways are there of arraning $N$ distinguishable objects.
- How many ways are there of arranging $N$ objects of type 1 and $M$ objects of type 2 .

