

The binomial random variable

•	Draw a tree diagra	m that illustrate	s the outcomes	that could b	oe obtained from	three bernoulli trials

• Illustrate on your tree diagrams, which outcomes correspond 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

ullet Write out the probability mass function for a binomial random variable with paraemter p and number of trials N.



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 \bullet How many ways are there of arraning N distinguishable objects.

ullet How many ways are there of arranging N objects of type 1 and M objects of type 2.