



**MathsNET**

A joined up approach to  
teaching and learning  
mathematics

# Calculating the expectation

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- How is the expectation of a discrete random variable calculated?
- How is the expectation of a continuous random variable calculated?
- What do we mean by the  $n$ th moment of the random variable  $X$ ?
- What do we mean by the  $n$ th central moment of the random variable  $X$ ?
- How is the variance of a random variable calculated?



# Calculating the expectation

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- Complete the following sentence "the ? is the ? moment of the distribution"
- How is the moment generating function computed?
- How do you calculate the  $n$ th moment of the distribution from the moment generating function?