



MathsNET

A joined up approach to
teaching and learning
mathematics

The central limit theorem

- Explain the scope of the central limit theorem. What do we want to know about the sum of a set of random variables
- State the central limit theorem, ensuring that you define all the terms within the equation.
- Explain the rationale for writing the central limit theorem without the limit sign
- In order for the central limit theorem to have any predictive value what must we be able to say about the expectation and variance of our random variable.



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- Explain what we mean by a confidence limit and the meanings of the symbols ϵ and p_c that are introduced in the video.

- Explain in your own words why $p_c = 2\Phi\left(\frac{\epsilon}{\sigma/\sqrt{n}}\right) - 1$

- If I perform 20 measurements of some random quantity X how many of my measurements would I expect to lie within the 95