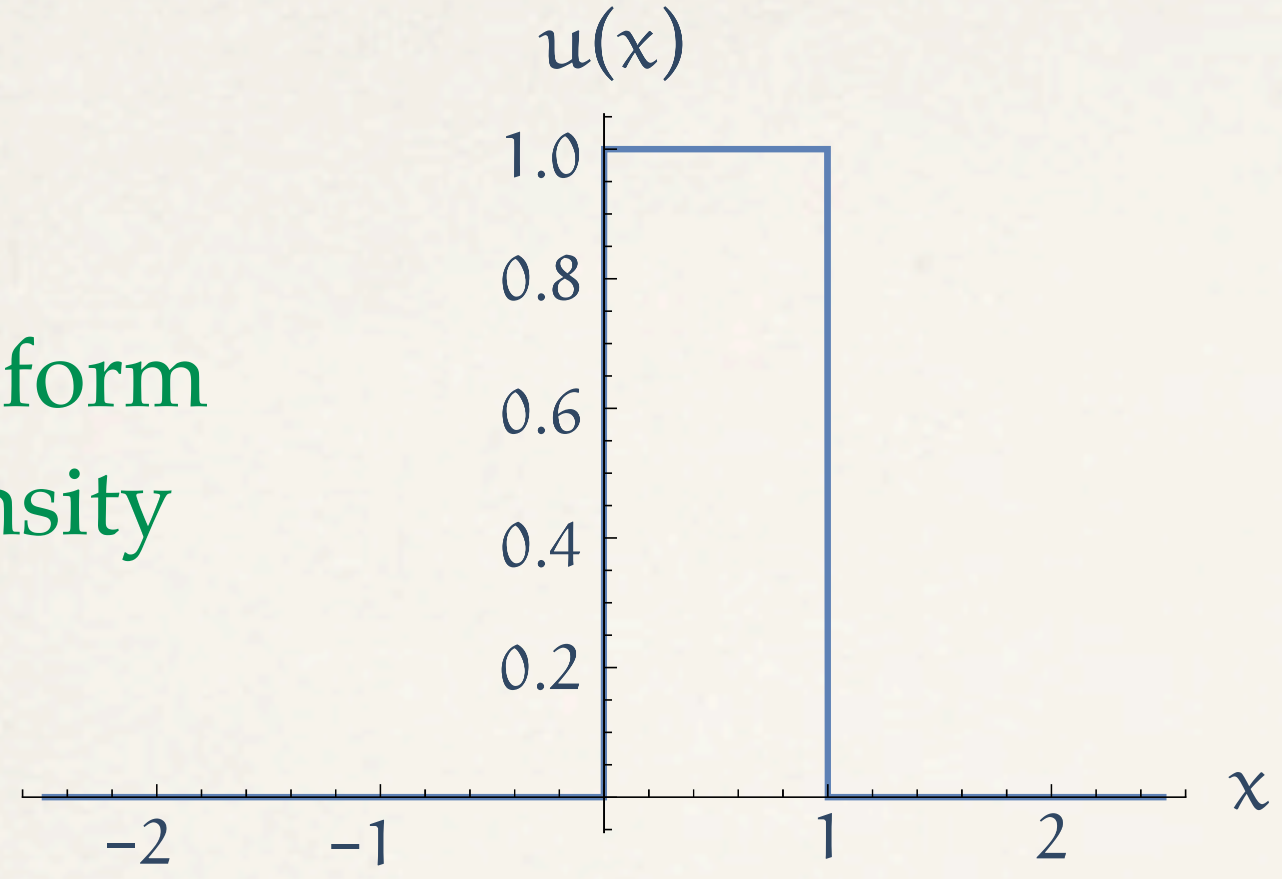
The basic densities

uniform
density



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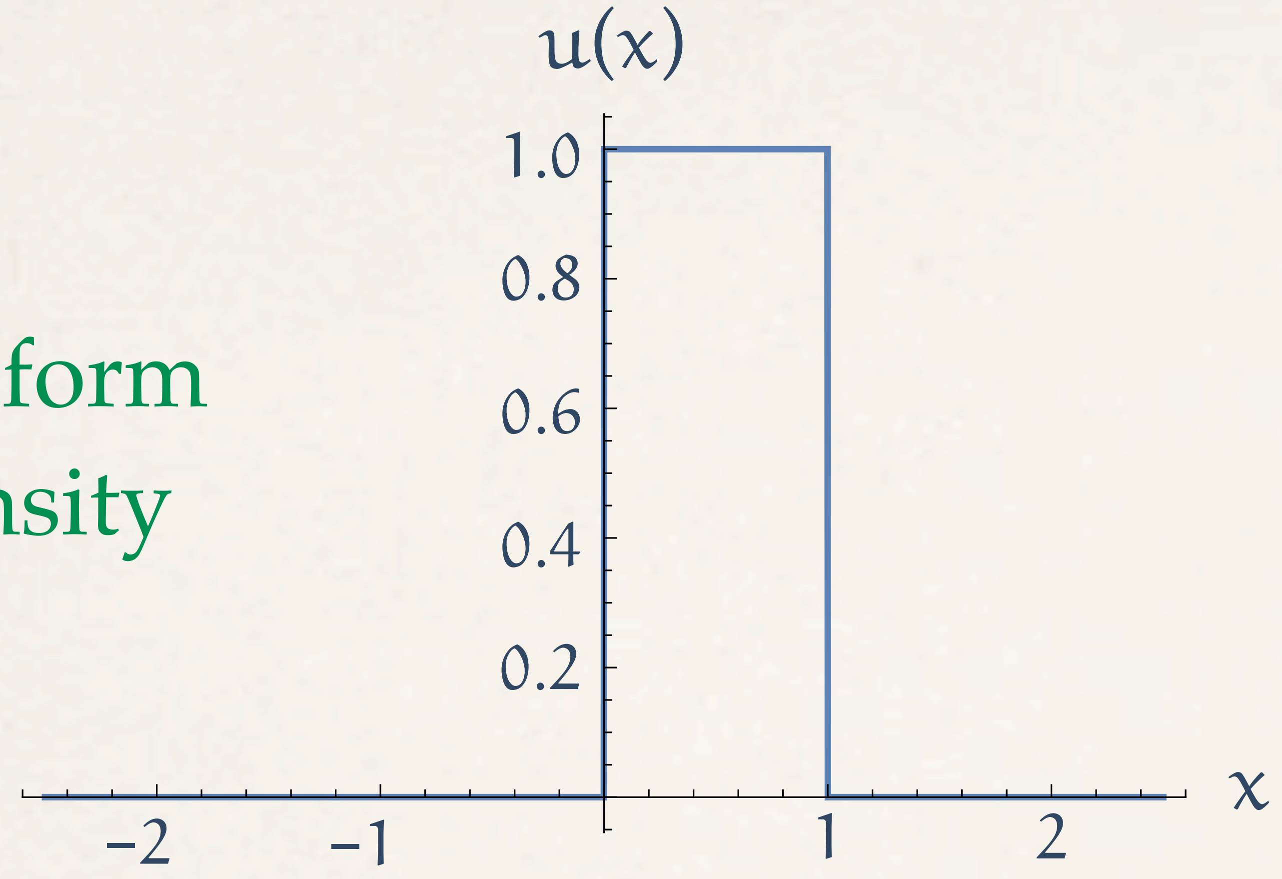
uniform
density



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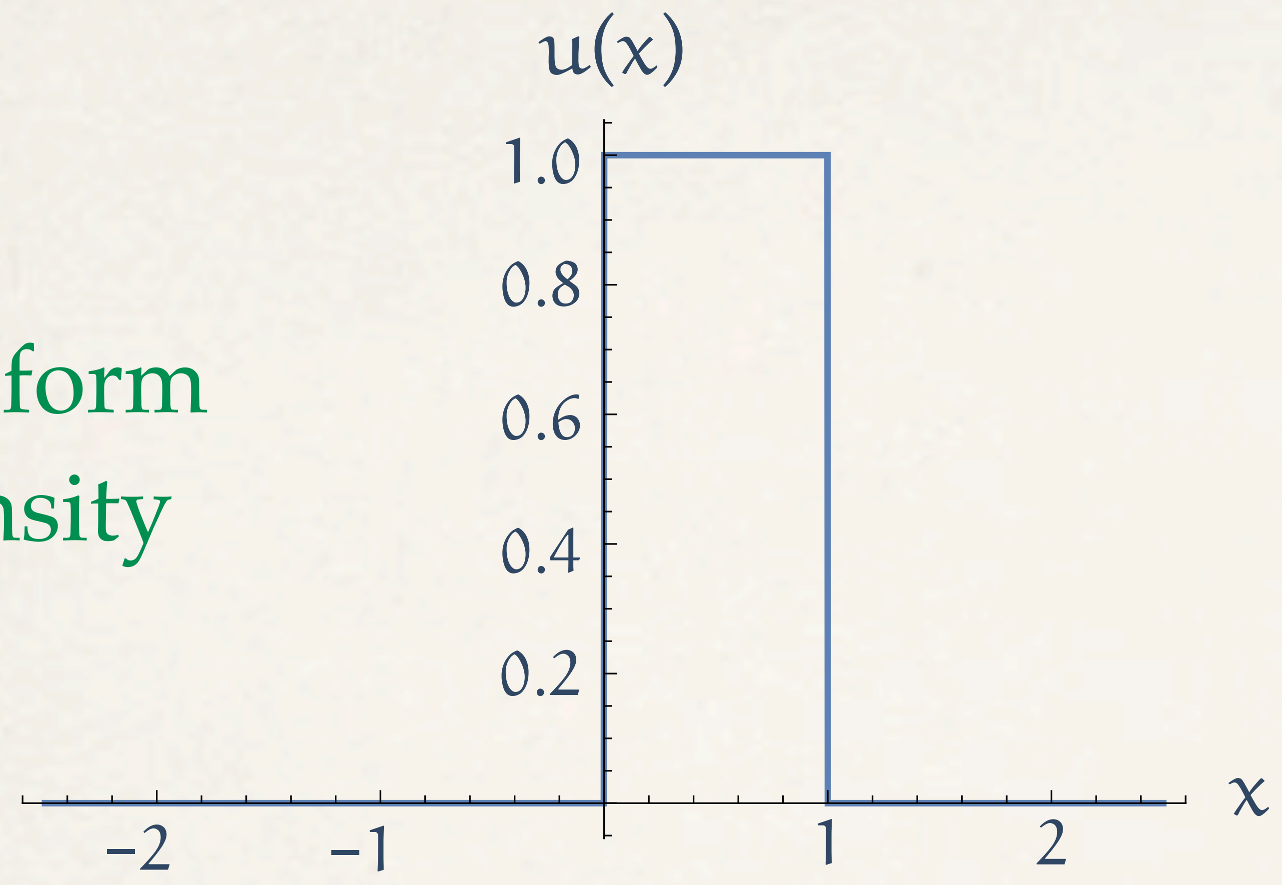

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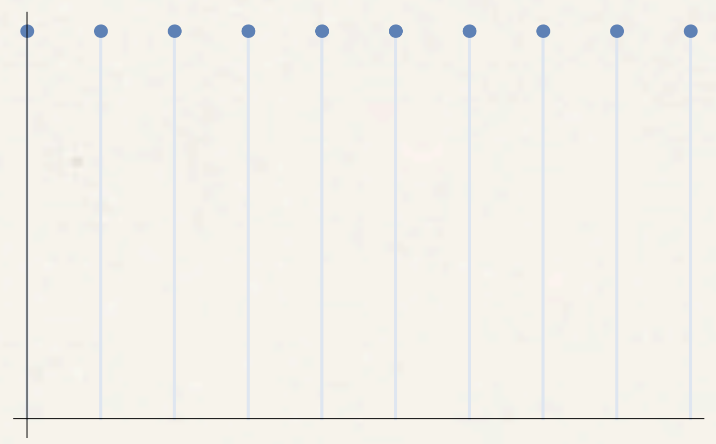
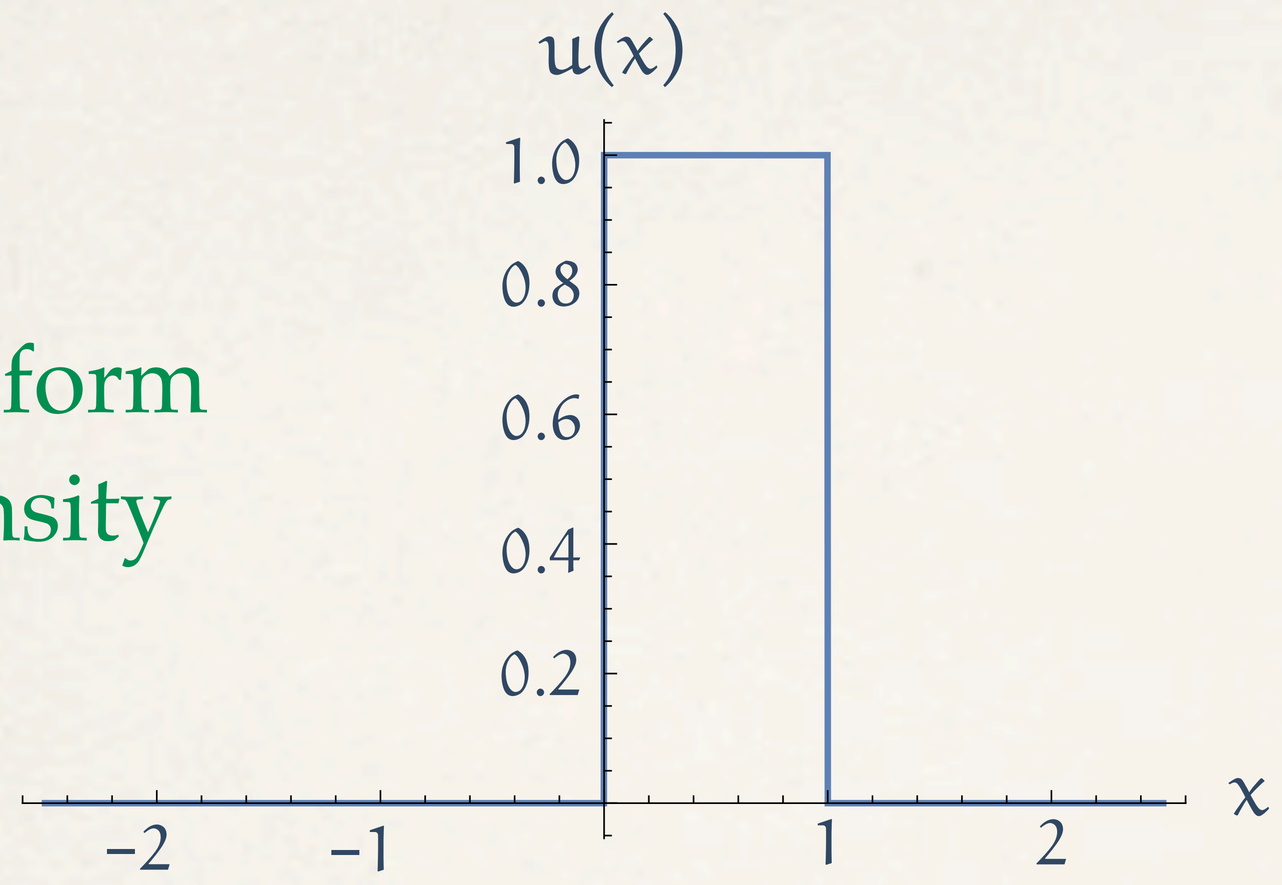
discrete analogue: combinatorial distribution





uniform density

random choice

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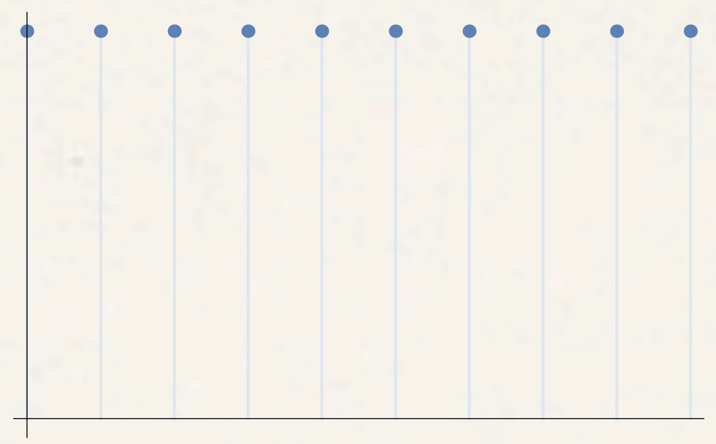

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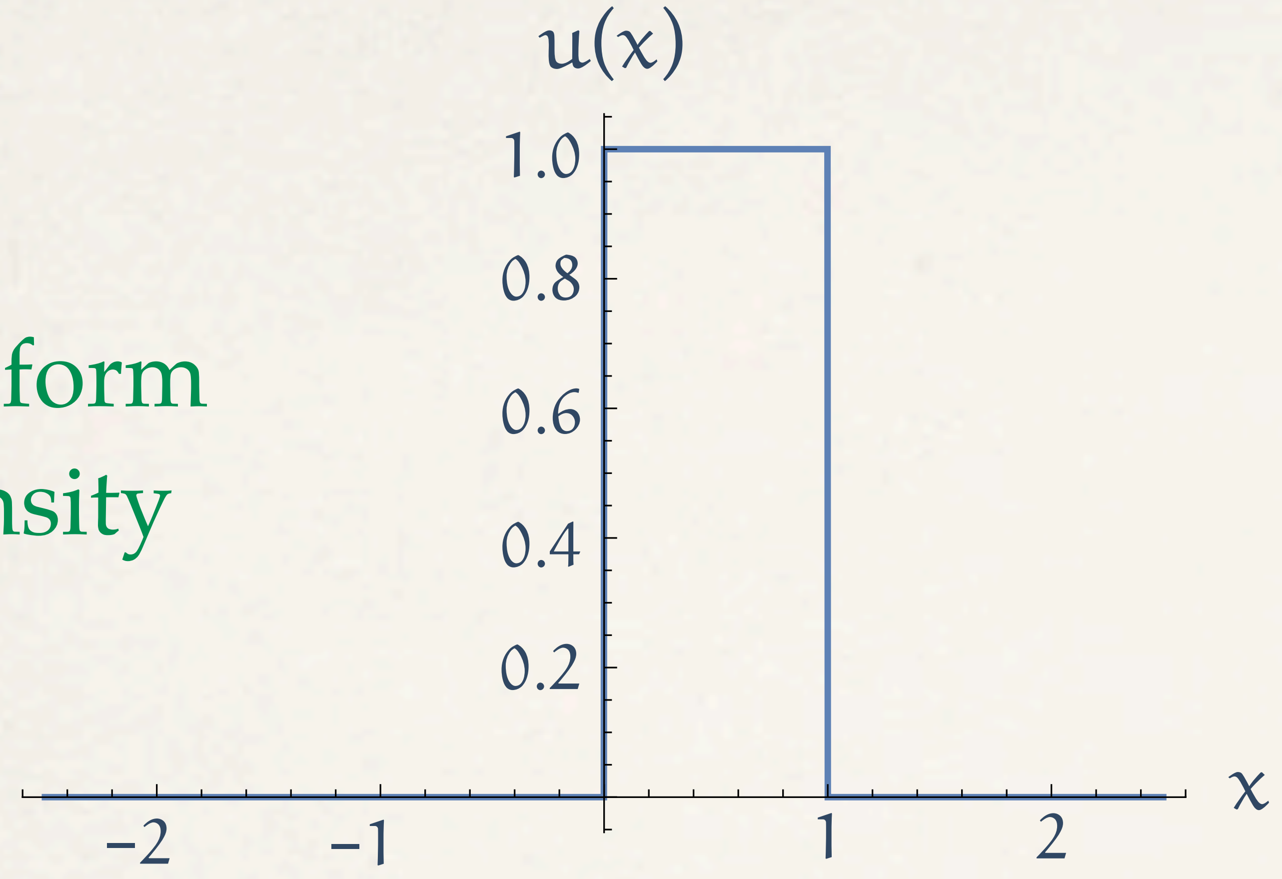

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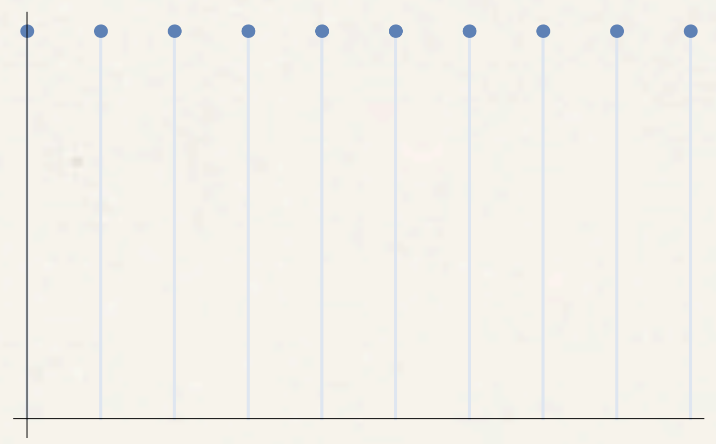
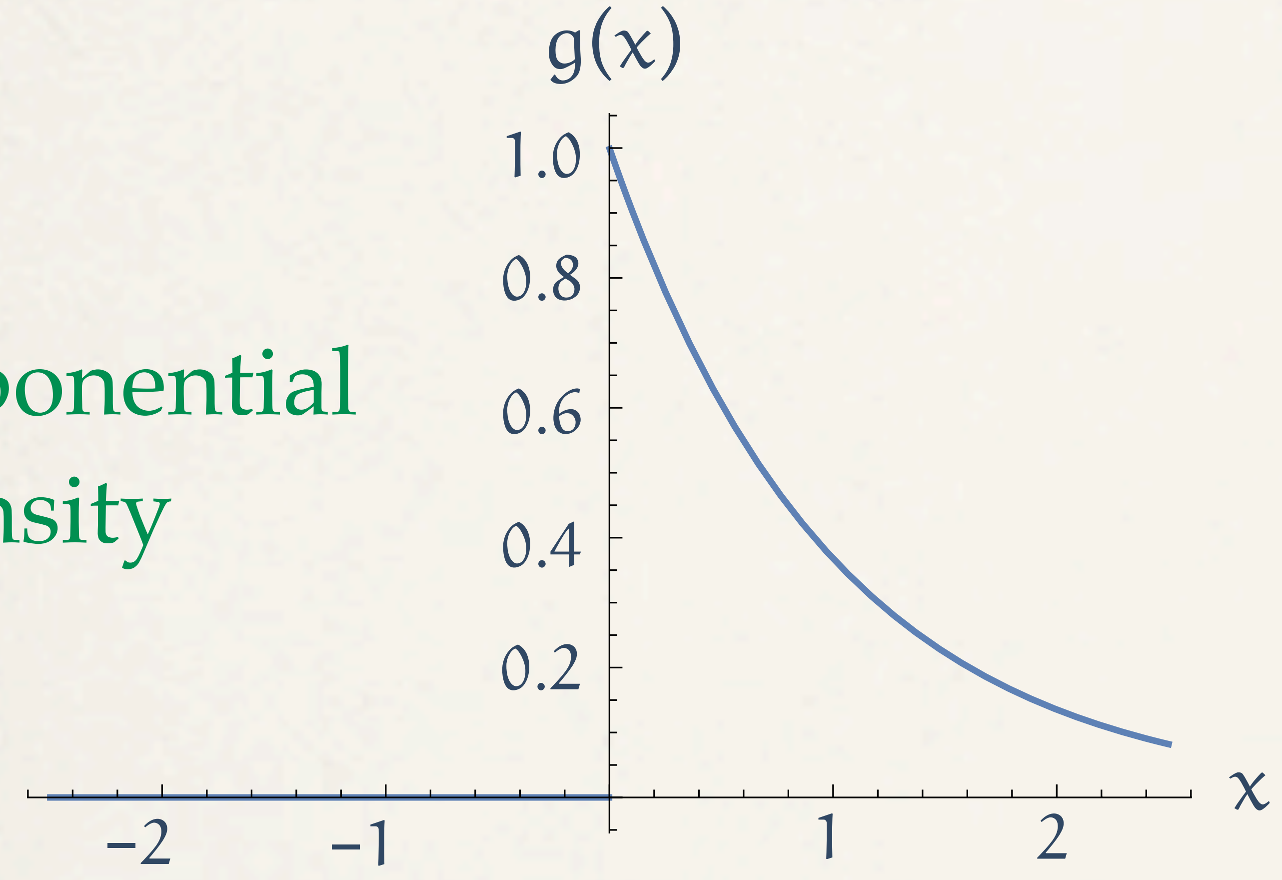


exponential density



$$g(x) = \begin{cases} e^{-x} & \text{if } x \geq 0 \\ 0 & \text{if } x < 0 \end{cases}$$

random choice

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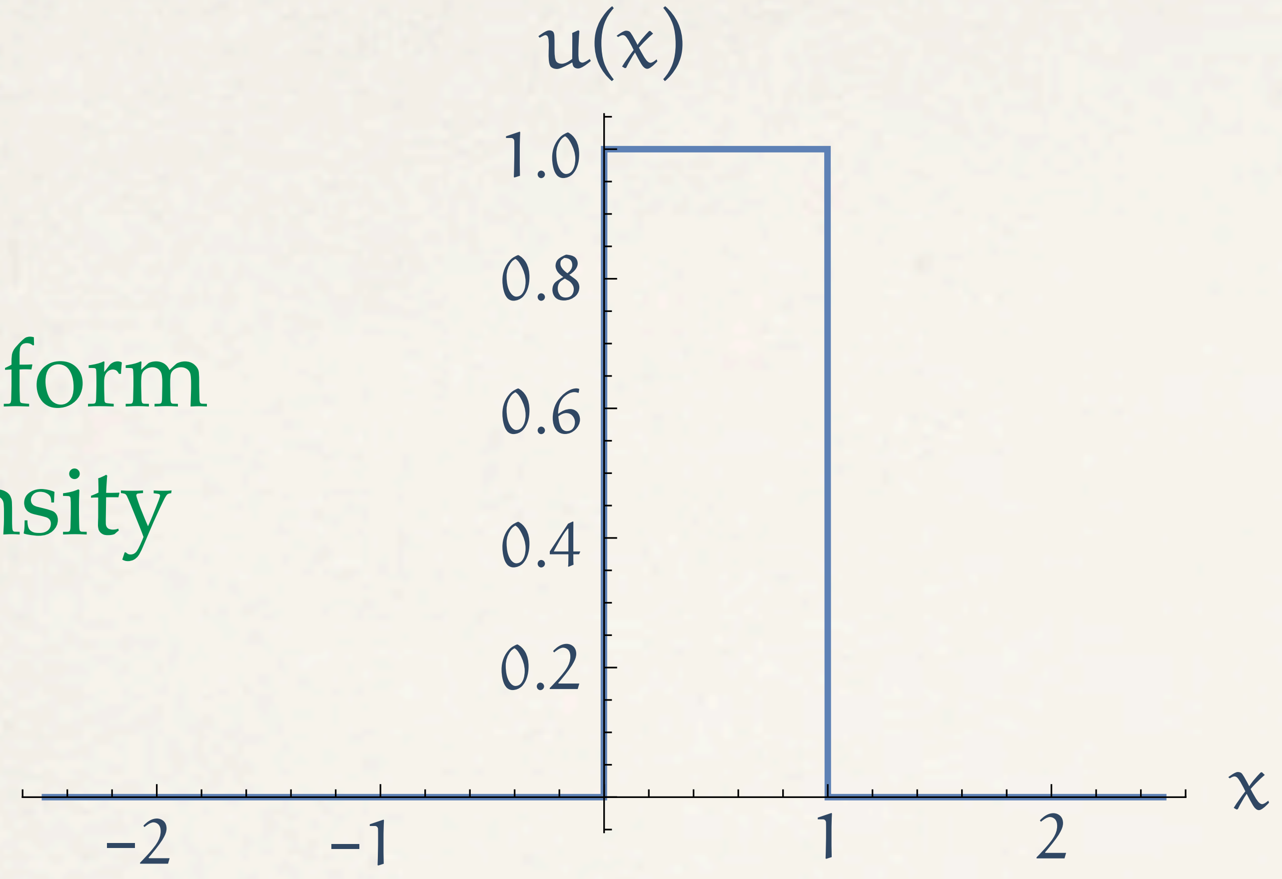
uniform density



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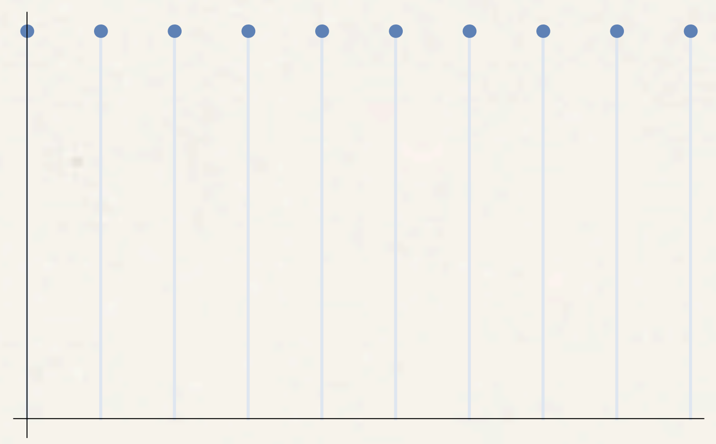

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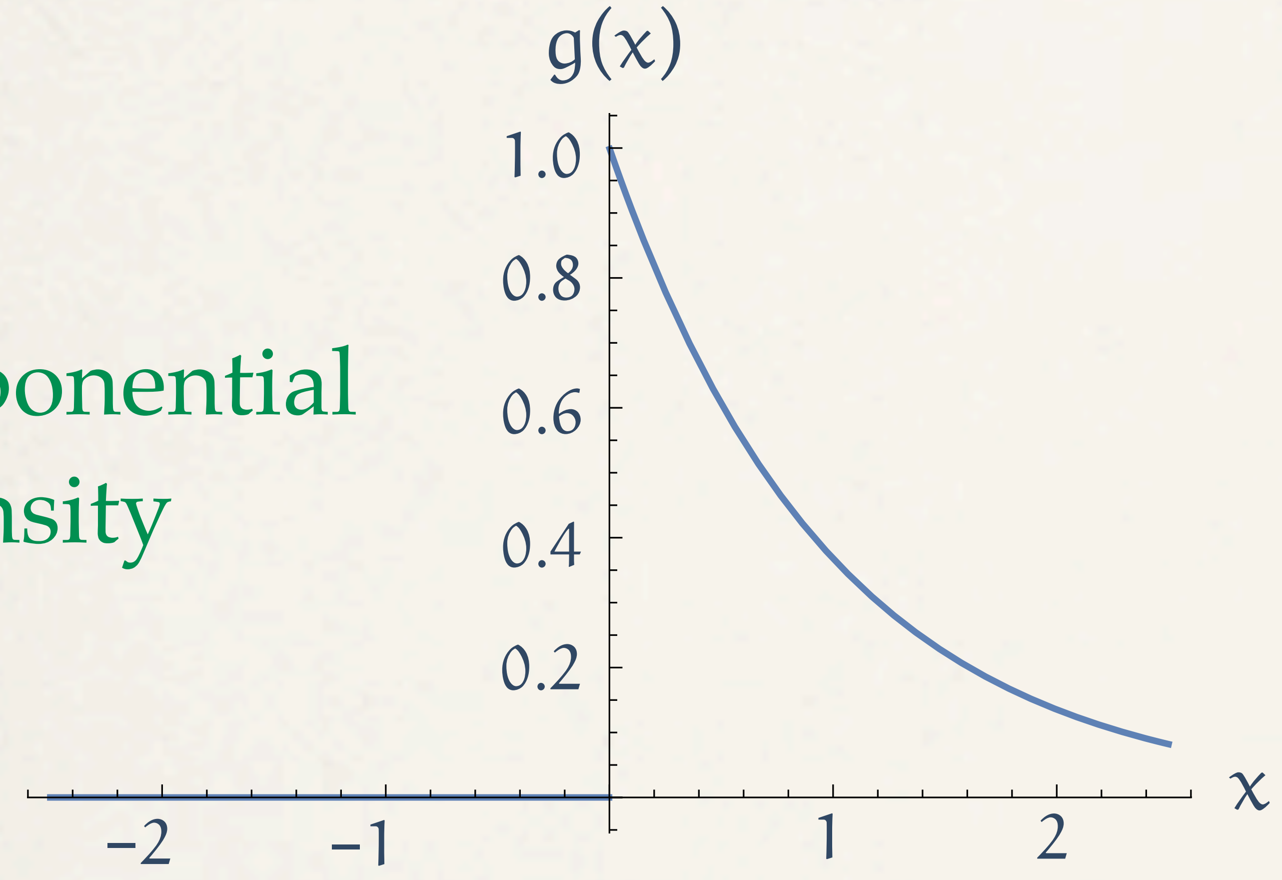

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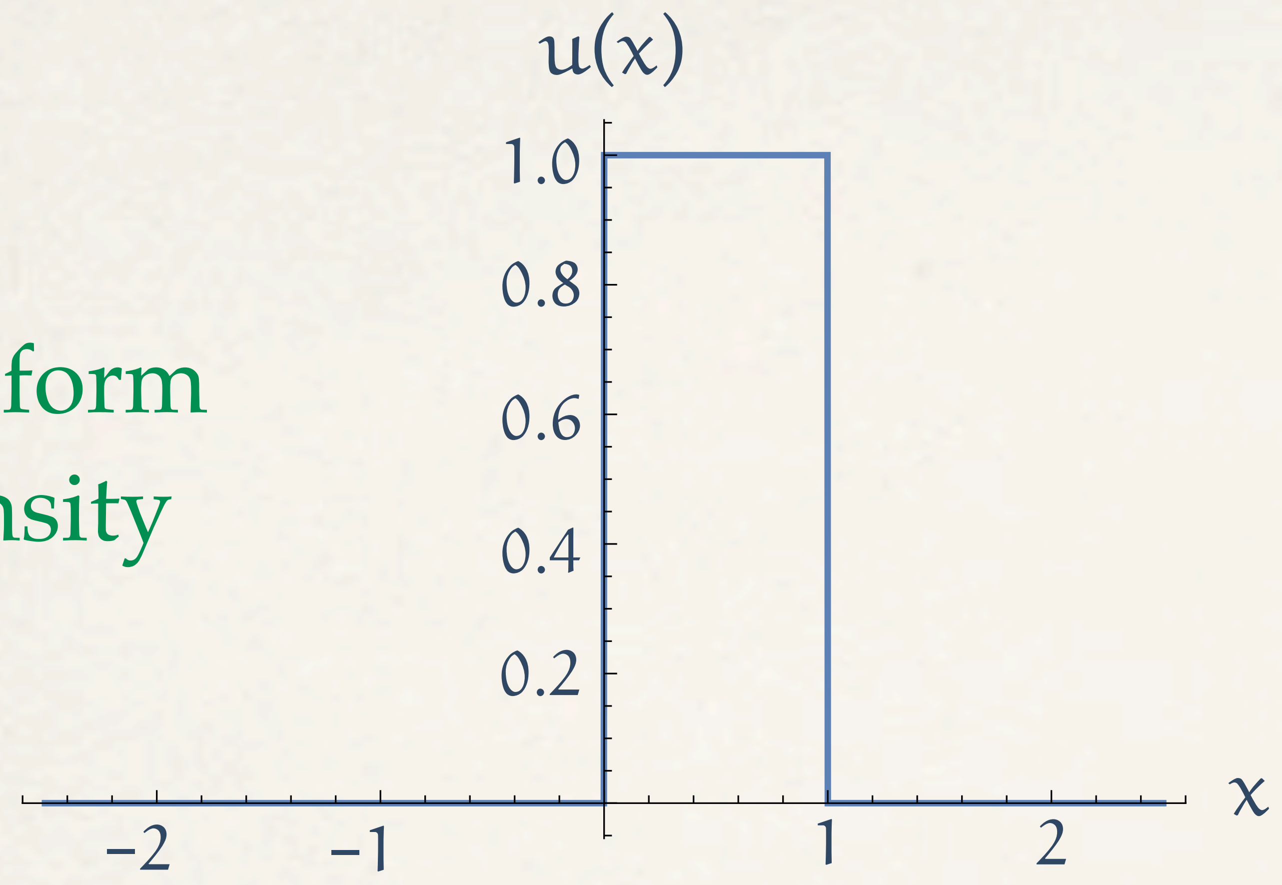

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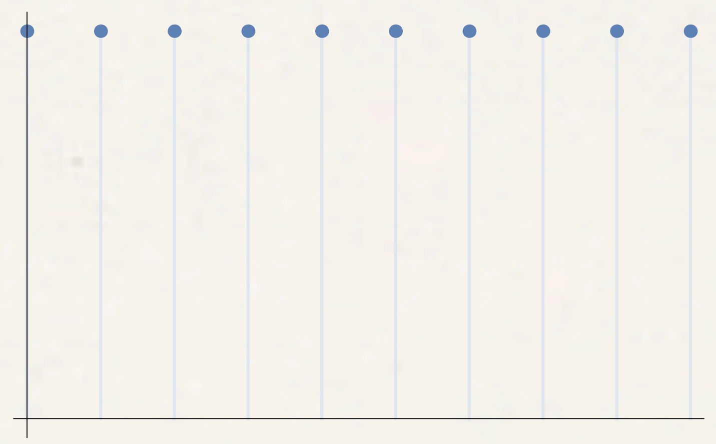

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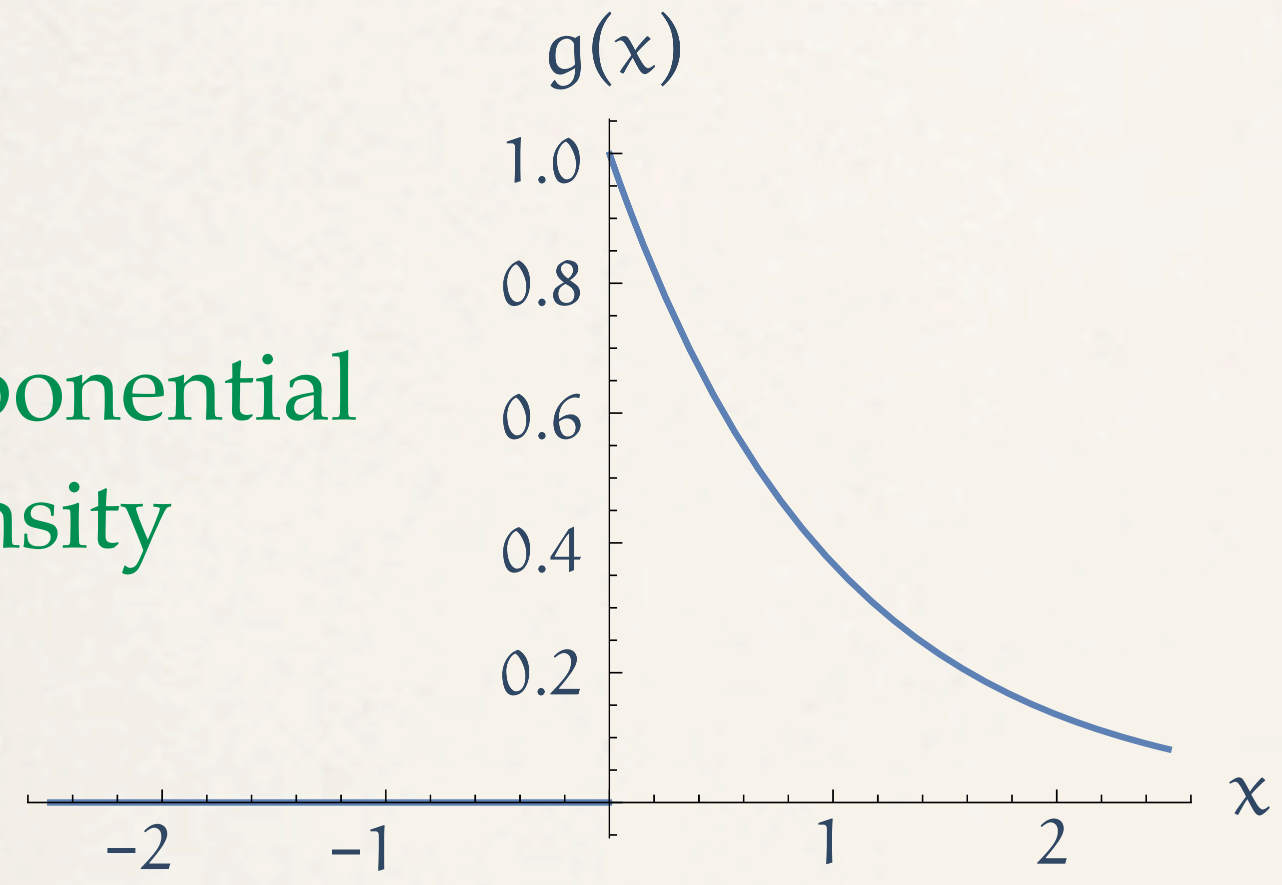

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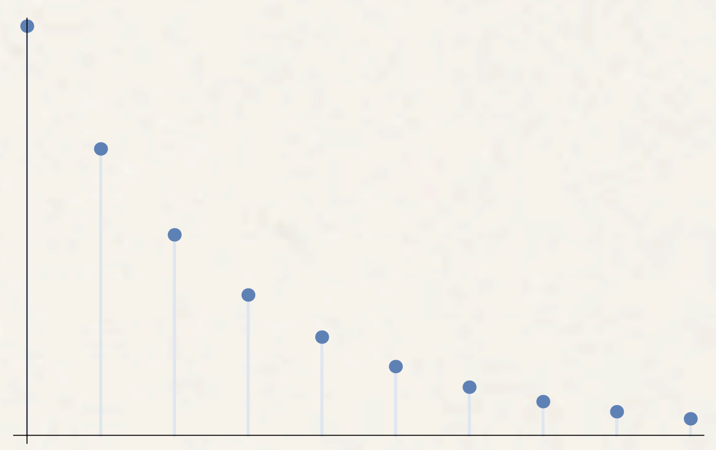
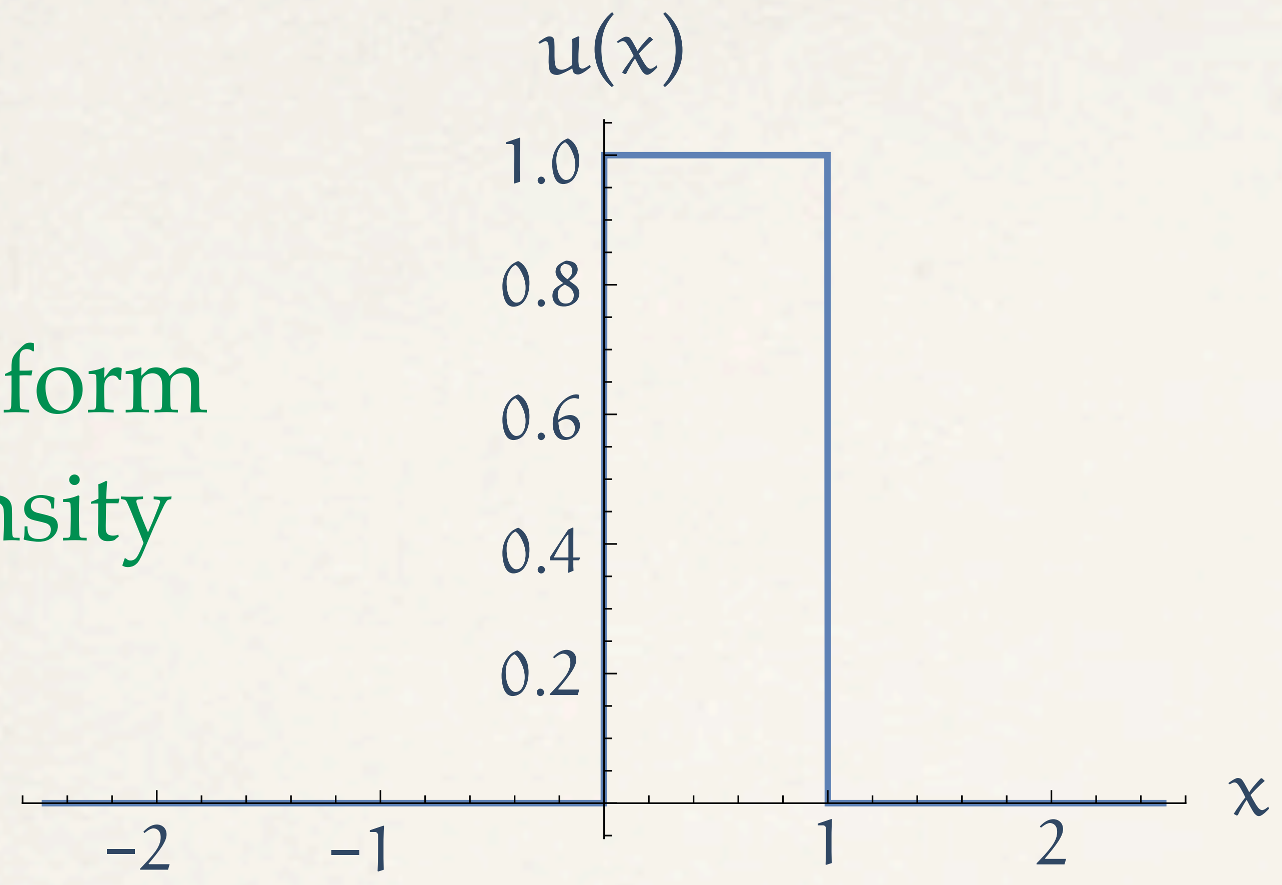


uniform density



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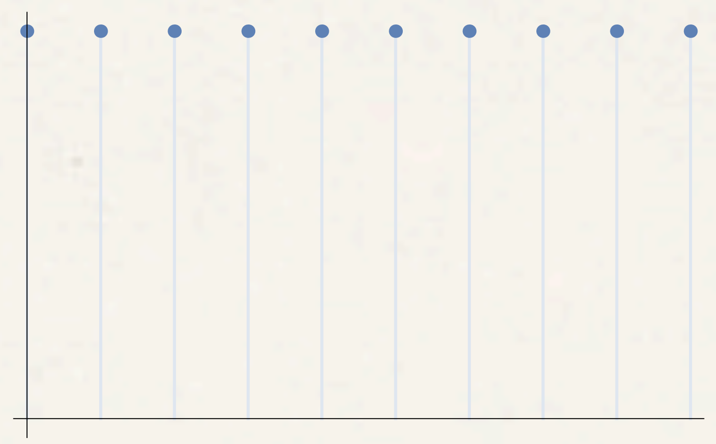

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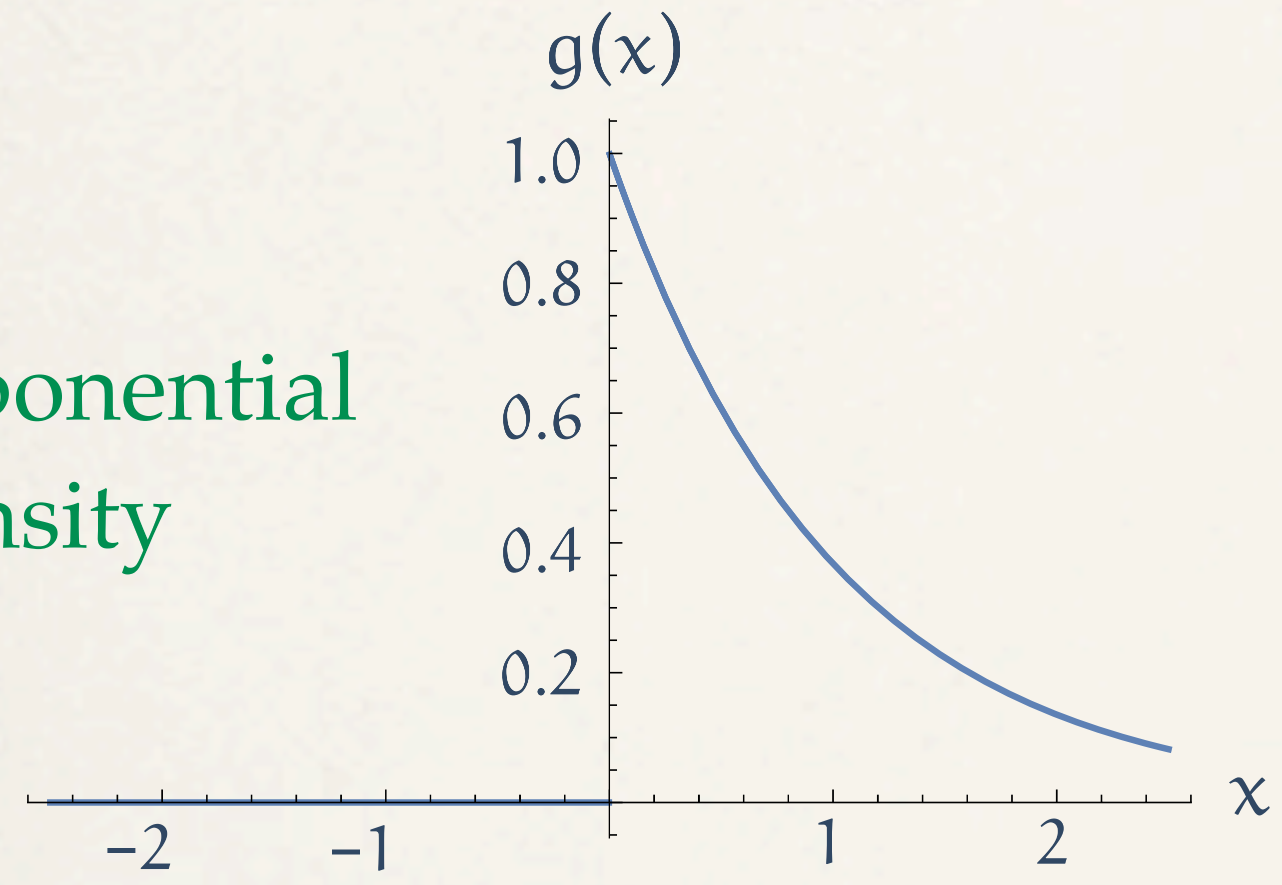

waiting times, queues

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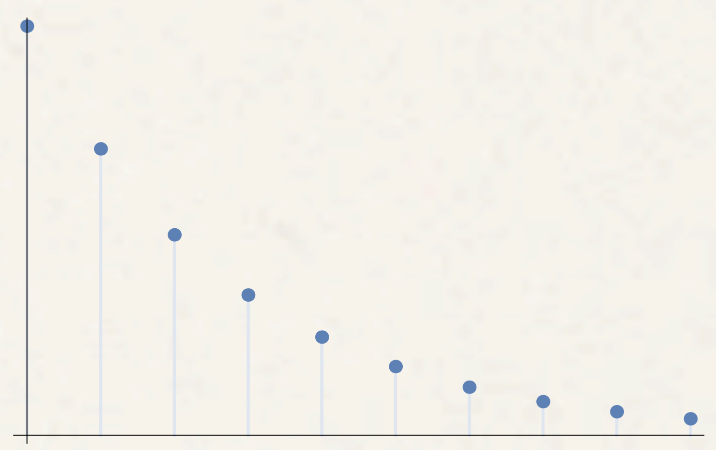

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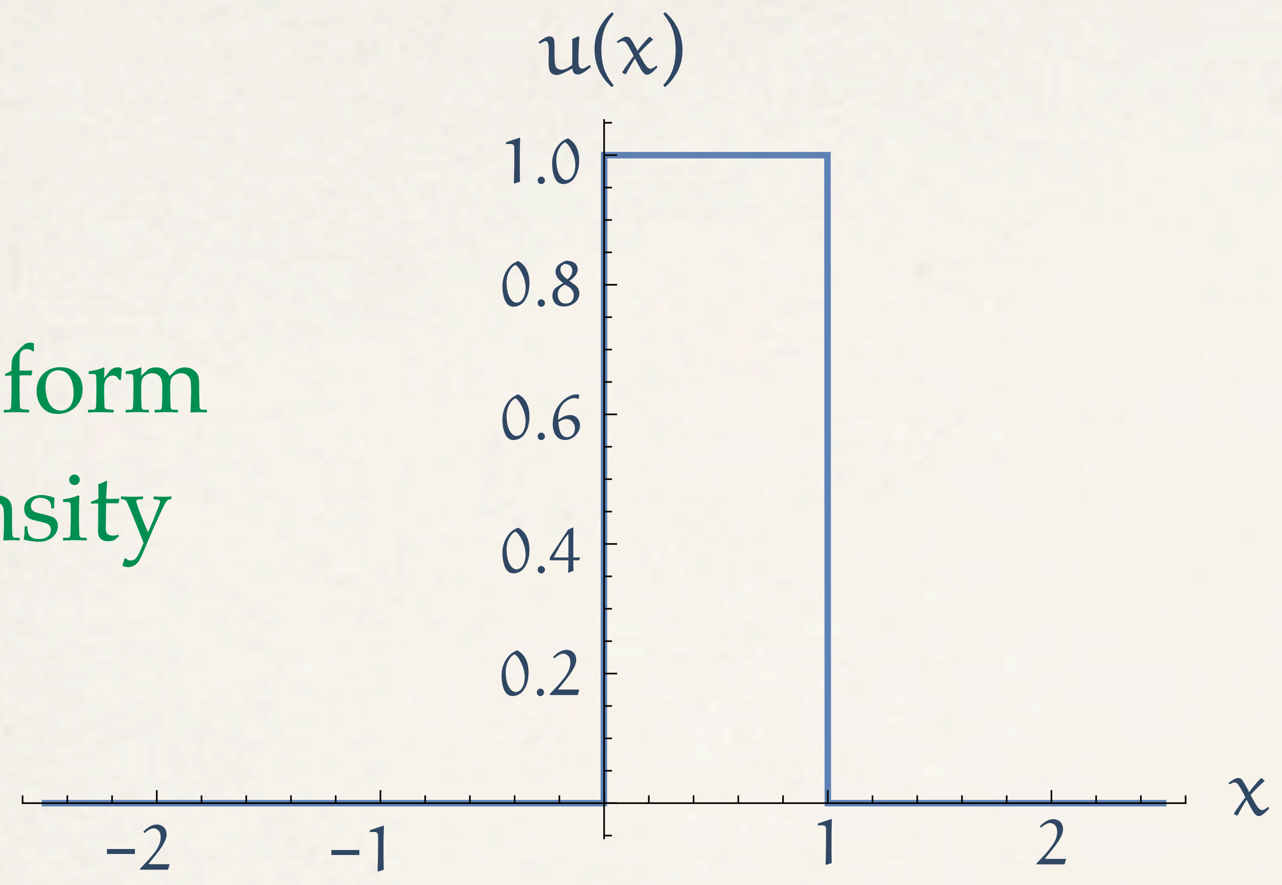

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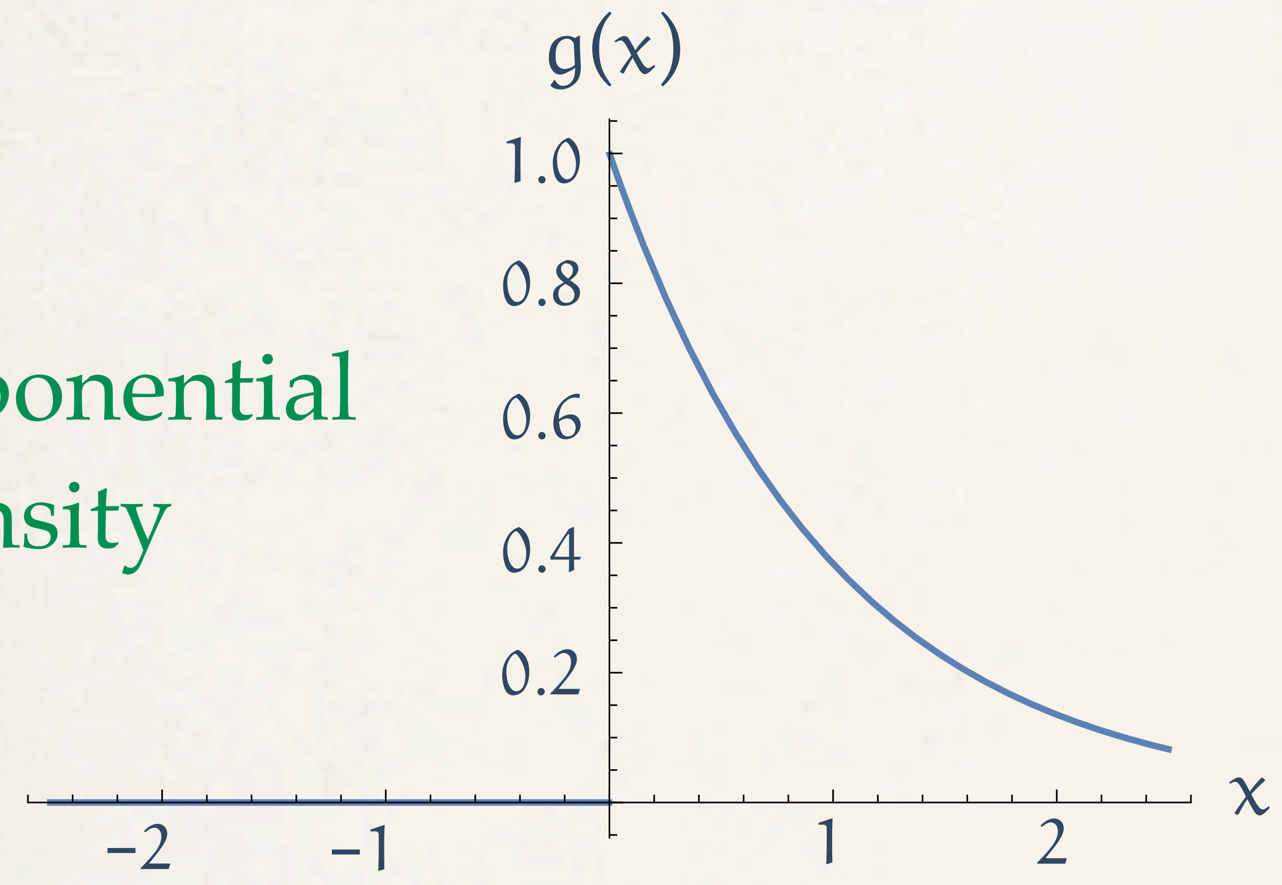

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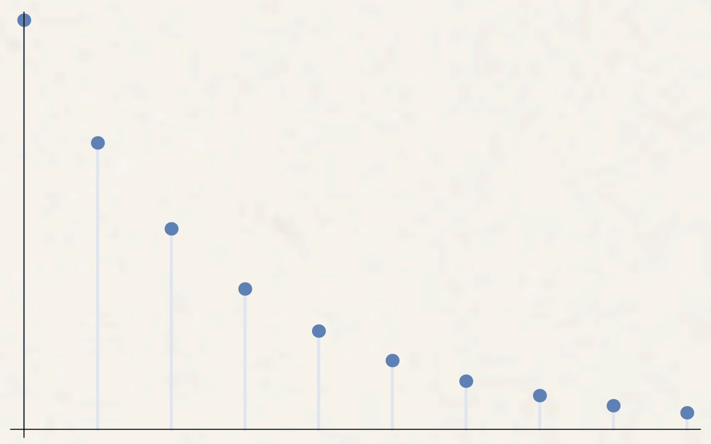
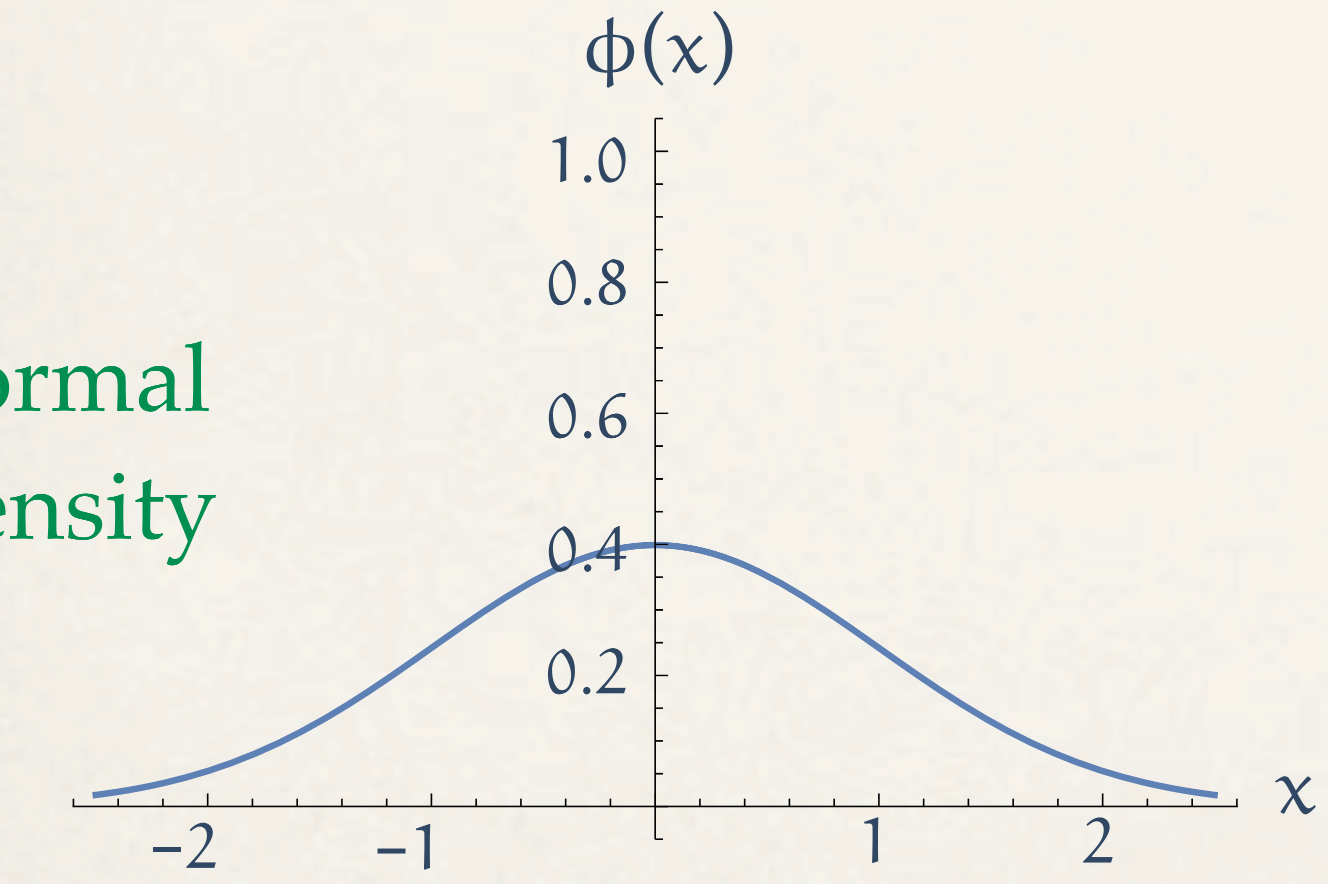


normal density



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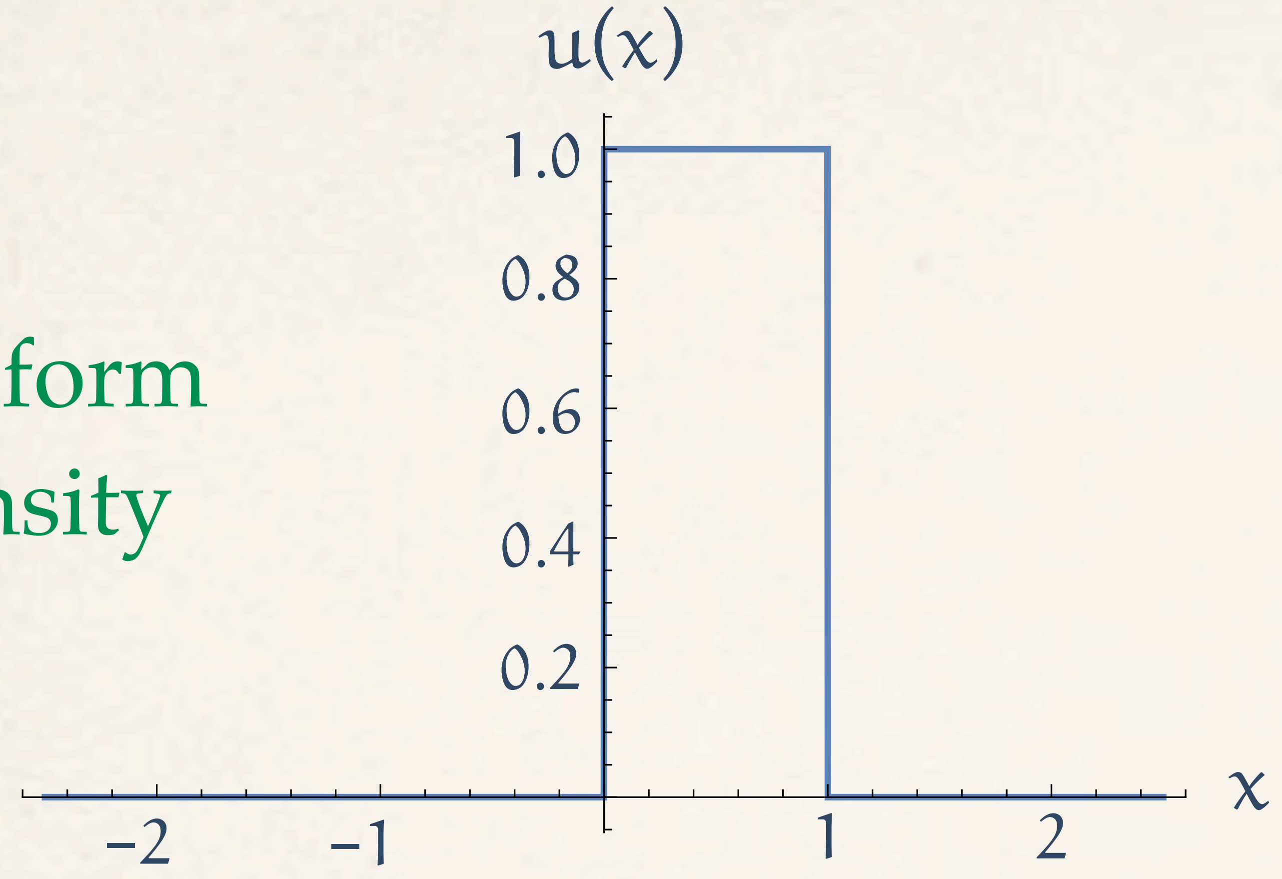

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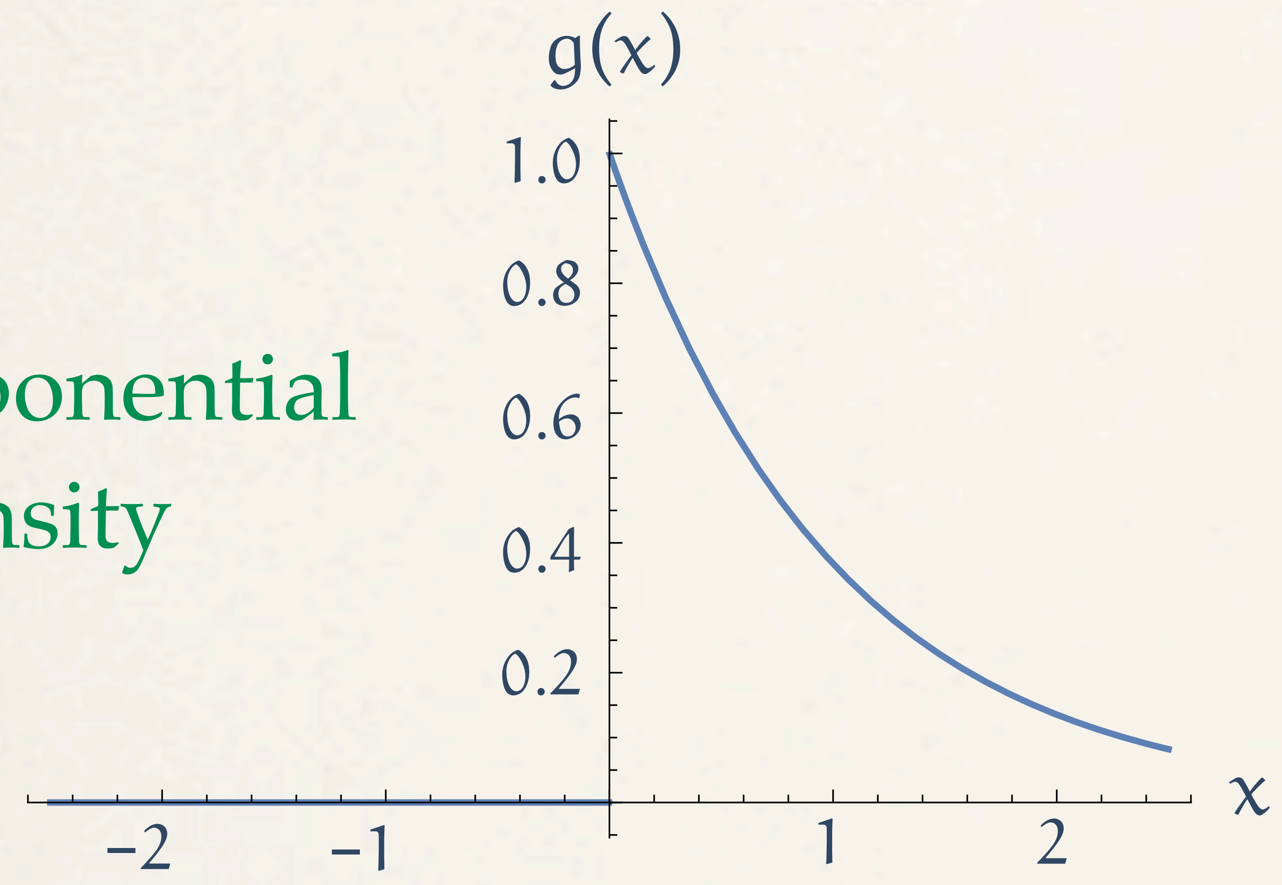

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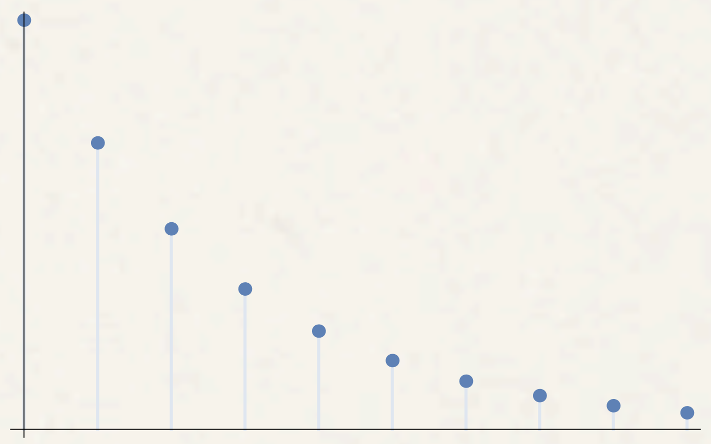

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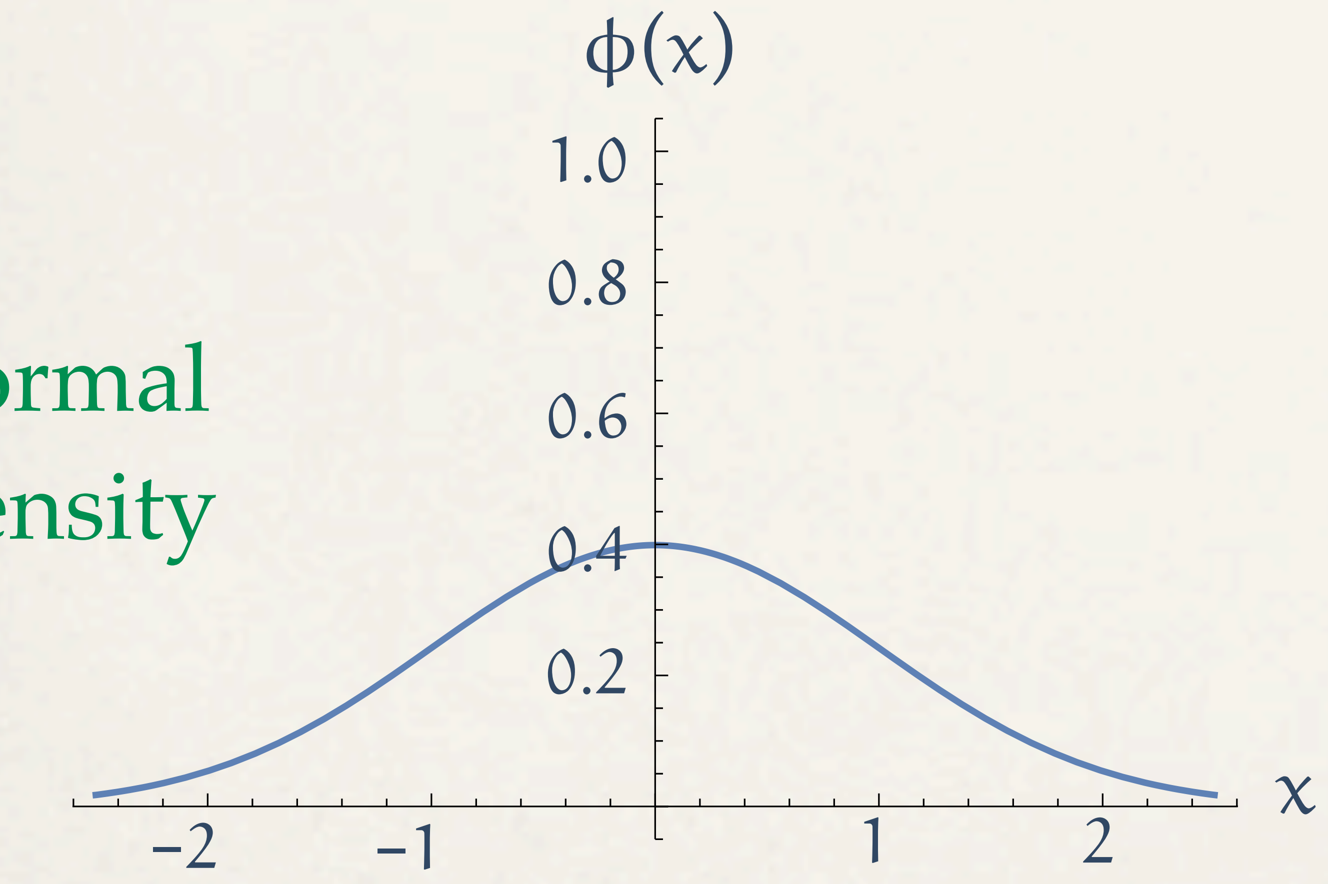
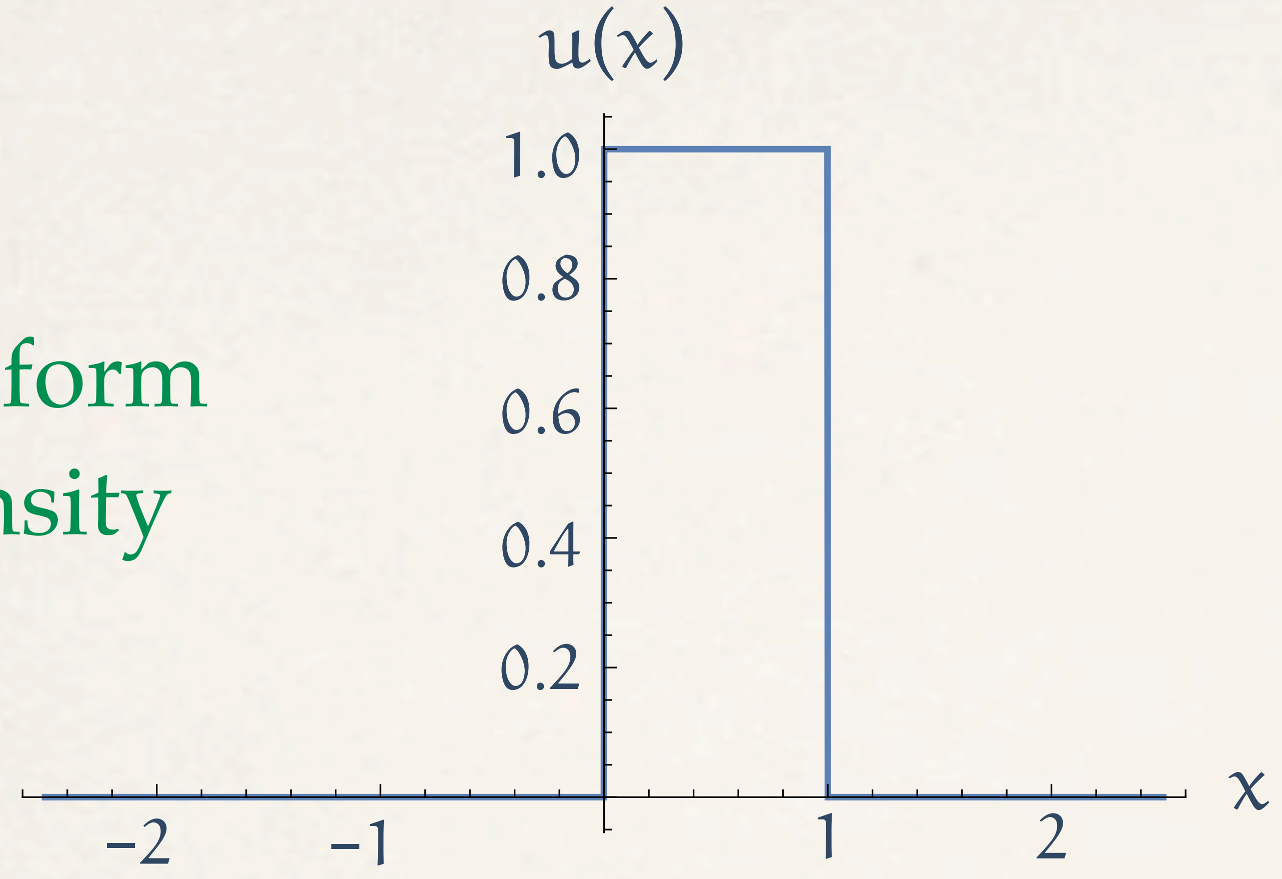


$$\phi(x) = \frac{e^{-x^2/2}}{\sqrt{2\pi}}$$

uniform density



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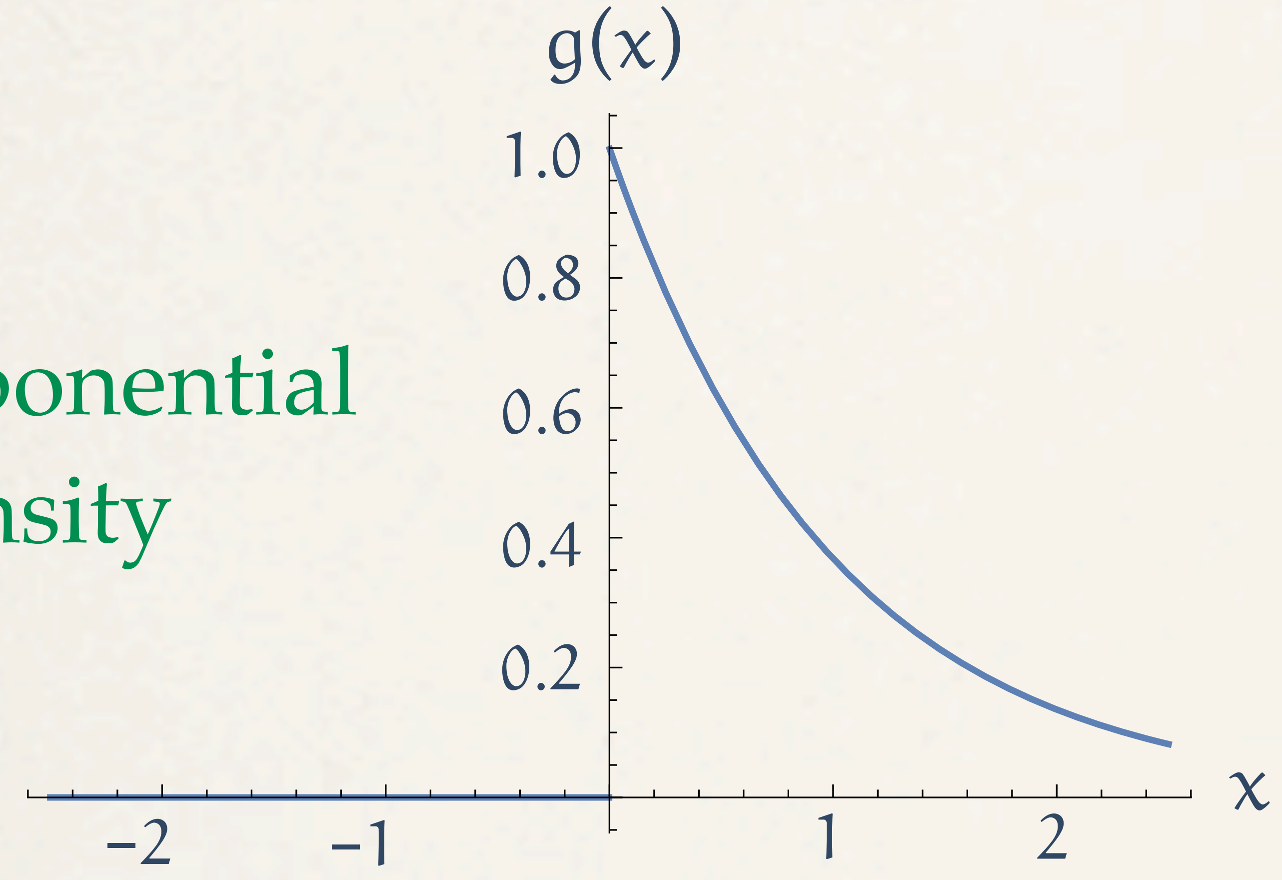

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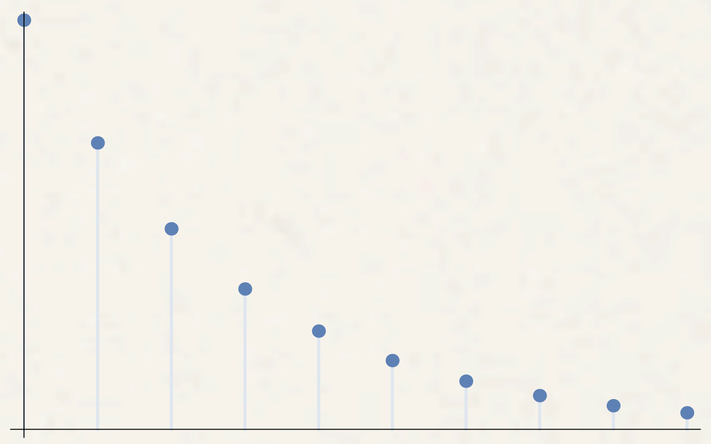

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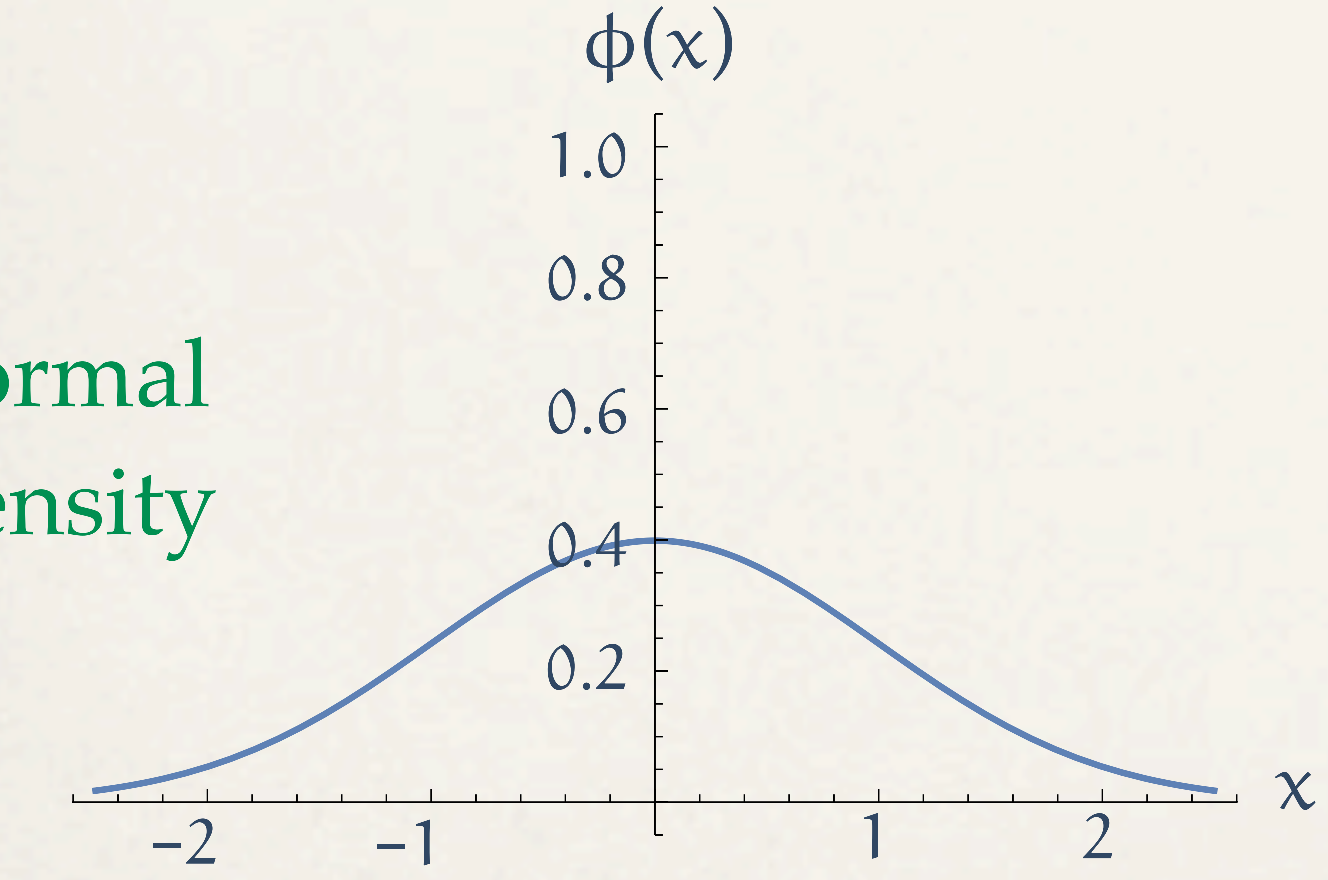

discrete analogue: binomial distribution

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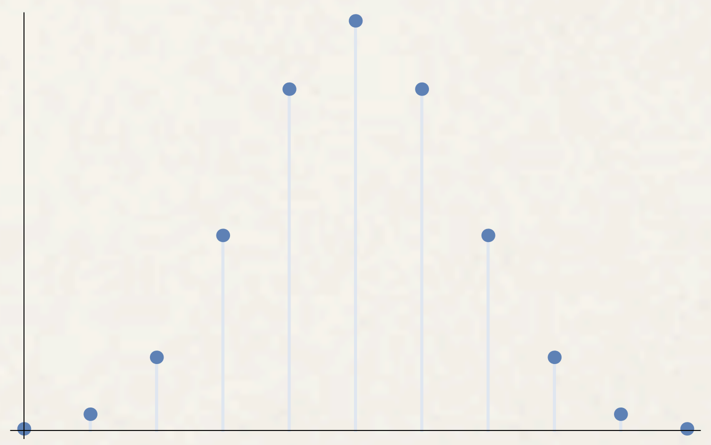
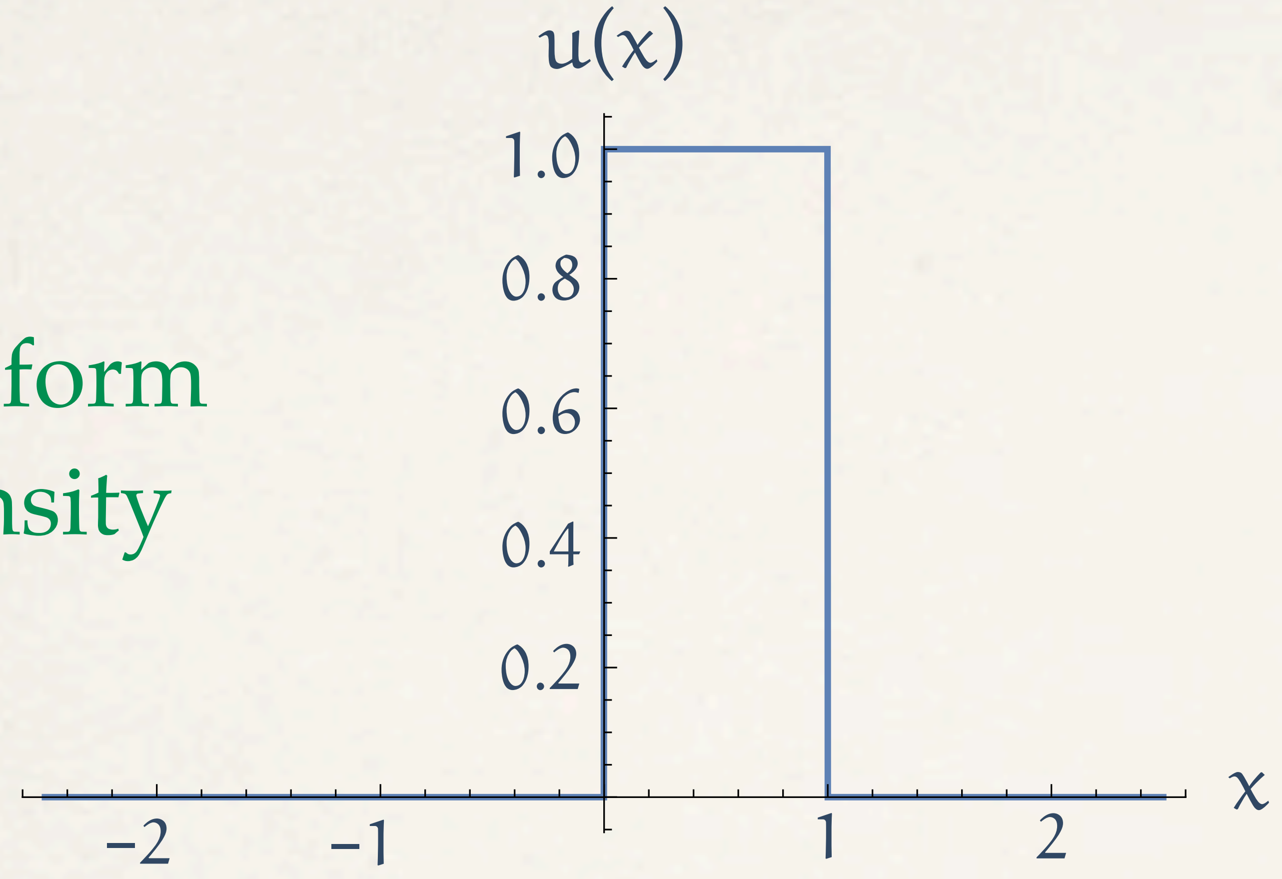


uniform density



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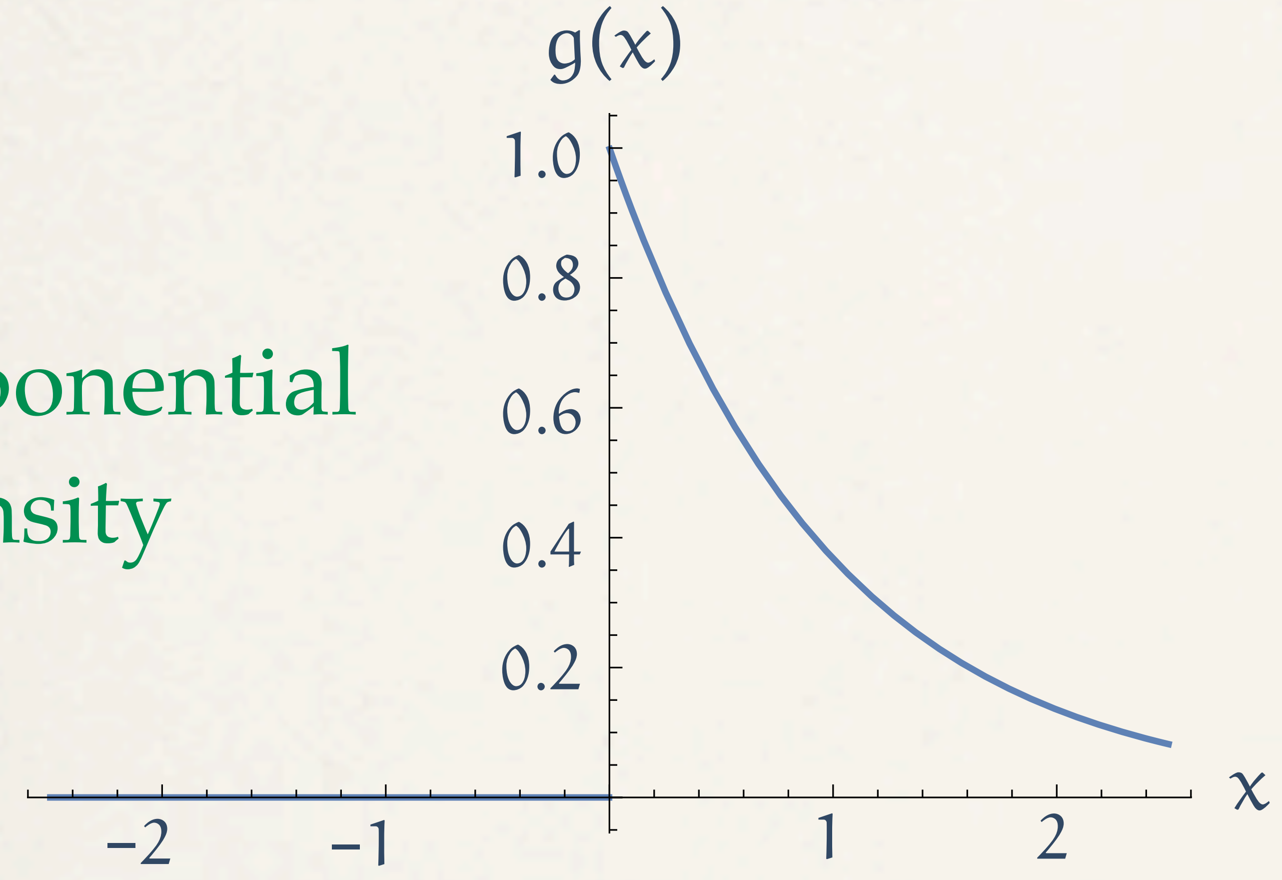

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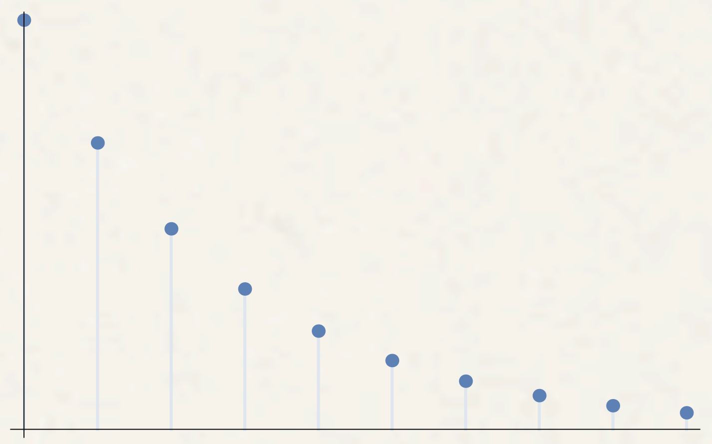

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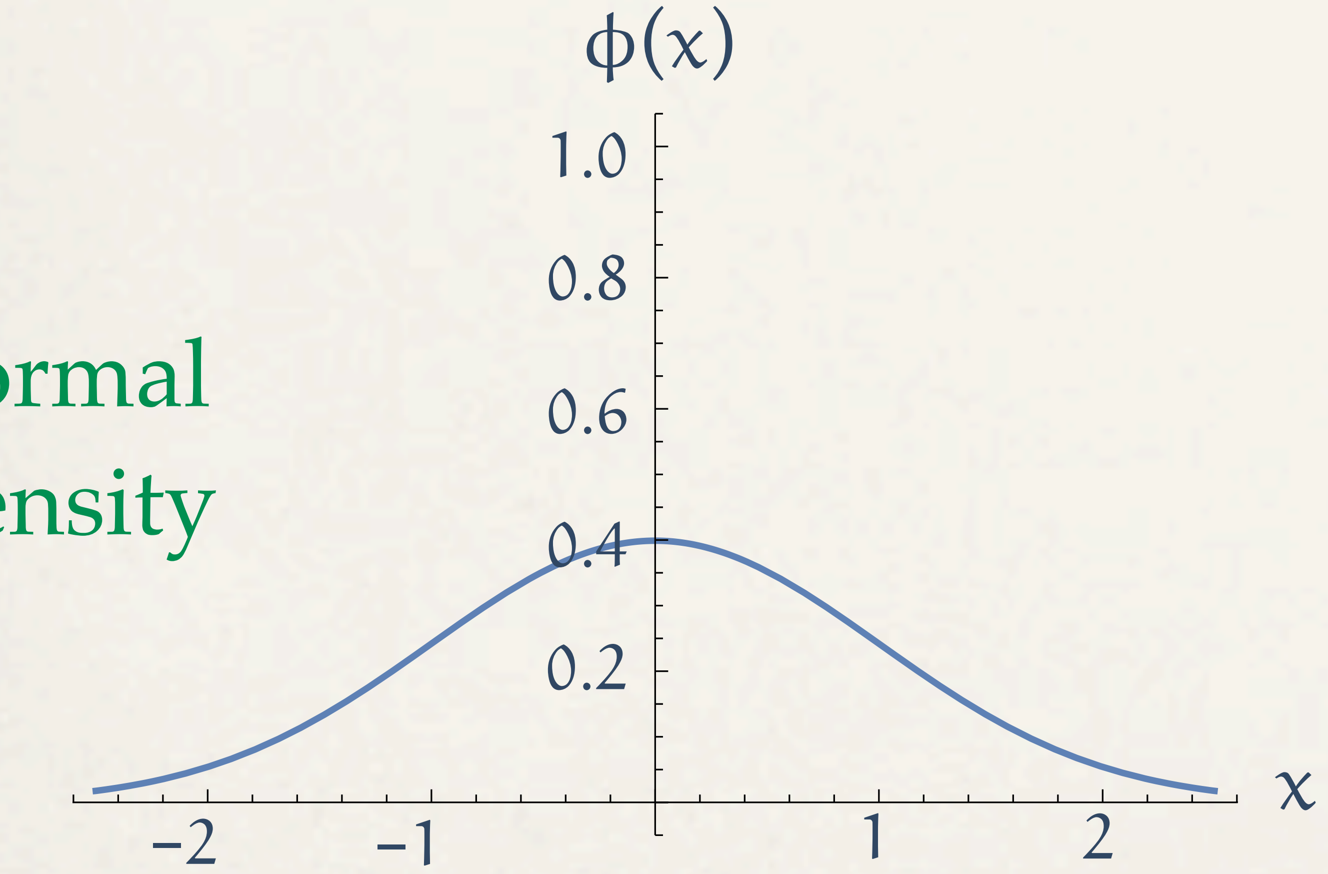

central tendency, bell curve

discrete analogue: binomial distribution

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