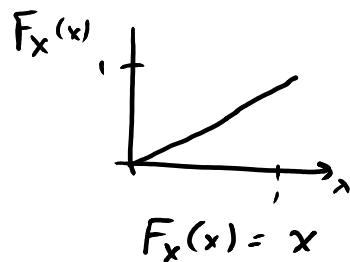
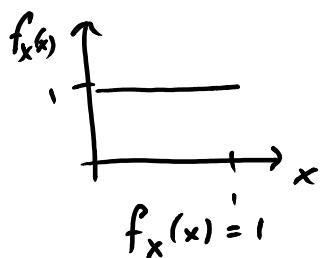


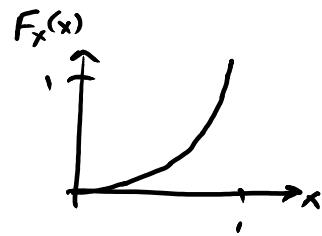
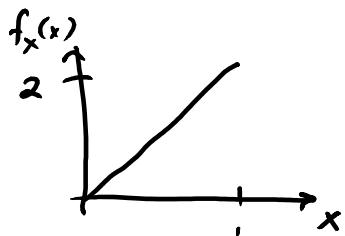
How do the density and CDF of Beta random variables look?

If  $\alpha=1, \beta=1$ , then a Beta random variable is just uniform.



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If  $\alpha=2, \beta=1$

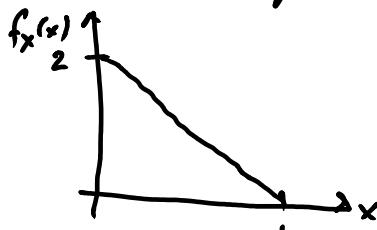


$$f_x(x) = 2x$$

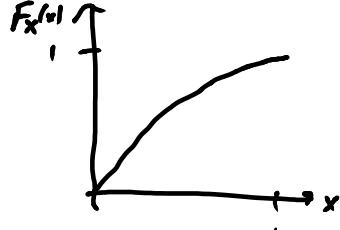
$$F_x(x) = x^2$$

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If  $\alpha=1, \beta=2$



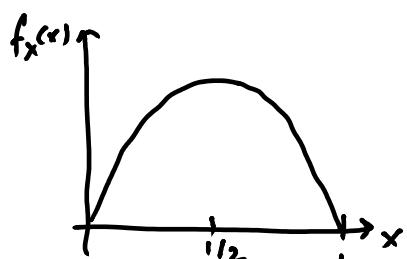
$$f_x(x) = 2(1-x)$$



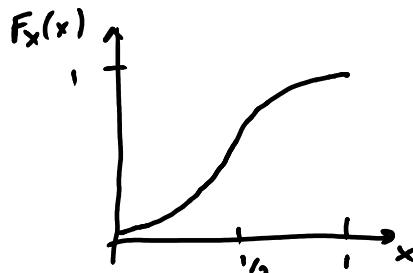
$$F_x(x) = x(2-x)$$

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If  $\alpha=2, \beta=2$



$$f_x(x) = 6x(1-x)$$



$$F_x(x) = x^2(3-2x)$$