

Example of mass and CDF. Let X be the number of chocolate chip cookies eaten by 3 children: There are 12 cookies total, 5 are chocolate, 7 are not chocolate, each child gets 1 cookie. The cookies are chosen without replacement.

mass of X : $P(X=0) = p_X(0) = \frac{7}{44} = .159\dots$

$P(X=1) = p_X(1) = \frac{21}{44} = .477\dots$

$P(X=2) = p_X(2) = \frac{7}{22} = .318\dots$

$P(X=3) = p_X(3) = \frac{1}{22} = .045\dots$

