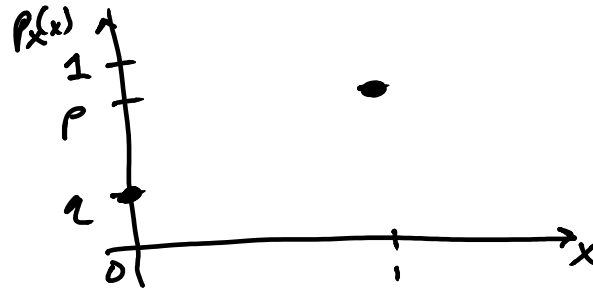# Mass and CDF of Bernoulli random variables

$$P(X=1) = p$$
$$P(X=0) = 1-p = q$$

Mass $p_X(1) = p$

$p_X(0) = q$

$p_X(x) = 0$ otherwise

CDF
$$F_X(x) = 0 \quad \text{if } x < 0$$
$$= q \quad \text{if } 0 \le x < 1$$
$$= 1 \quad \text{if } 1 < x$$