Special kind of random variable called an <u>indicator</u>
i.e. <u>indicator random variable</u>. A.k.a. Bernoulli random variables.

Main idea: Only take on values 0 or 1.
Let A be the set of outcomes (i.e. the event) that make $X = 1$
and if $X = 0$ for outcomes in A^c, we say X indicates event A
i.e. X is an indicator for A.

i.e. $\omega \in A \rightarrow X(\omega) = 1$ i.e. $X = 1$
$\qquad \omega \in A^c \rightarrow X(\omega) = 0$ i.e. $X = 0$

useful with sums of random variables.