1. For each of the following random variables, indicate whether it is continuous or discrete:

   (a) $X =$ the outcome of a die roll.

   (b) $Y =$ the number of earthquakes in 2004.

   (c) $Z =$ the time between sightings of a certain rare bird.

2. Let $X$ be a random variable with normal distribution, having expected value 2 and variance 0.5. Find $\Pr(0 \leq X \leq 1)$. 