Group_____Names_____

Group Quiz for Section 9.3

1. The distribution of X is defined as follows: I first flip a coin, with probability of heads given by p. If the coin comes up heads, then X is distributed as an exponential random variable with parameter λ; if tails, then X is distributed as a Gaussian random variable with mean μ and variance σ^2. Find $\mathbb{E}[X]$. (As always, explain your reasoning!!!!)