

**Quiz 2**

November 18, 2025

1. Find  $E[X]$  if  $X$  has the pdf

$$f_X(x) = \begin{cases} 0.2, & -1 < x < 0 \\ 0.2 + 1.2x, & 0 \leq x < 1 \end{cases}$$

2. The number of years a radio functions is uniformly distributed over  $(0, 16)$ . If Jones buys a working used radio that is 4 years old, then what is the probability that it will be working after an additional 2 years?