Special Problem 3.5-11

Say that the input to some rectifier circuit is $v_s(t)$ shown below:

1. Carefully sketch below the output signal $v_o(t)$ if this rectifier were an IDEAL full-wave rectifier (you are not required to show any other work besides the sketch).

TURN TO THE NEXT PAGE !!!!!!!!
2. Carefully sketch below the output signal $v_o(t)$ if this rectifier were an **IDEAL half-wave rectifier** (you are not required to show any other work besides the sketch).

3. Carefully sketch below the output signal $v_o(t)$ if this rectifier had the transfer function given below (you are not required to show any other work besides the sketch).

\[
v_o(t) = \begin{cases} 
  v_s & \text{for } v_s < 0.5 \\
  -v_s + 1 & \text{for } v_s > 0.5 
\end{cases}
\]