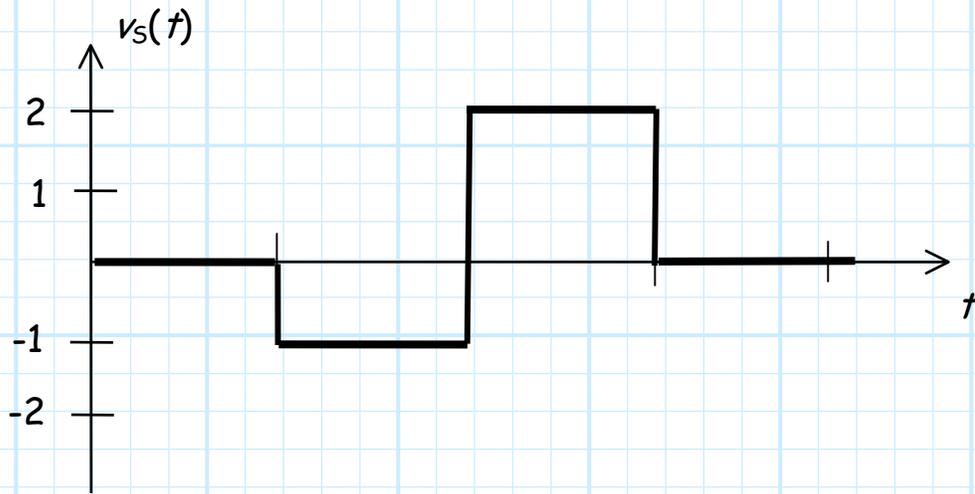
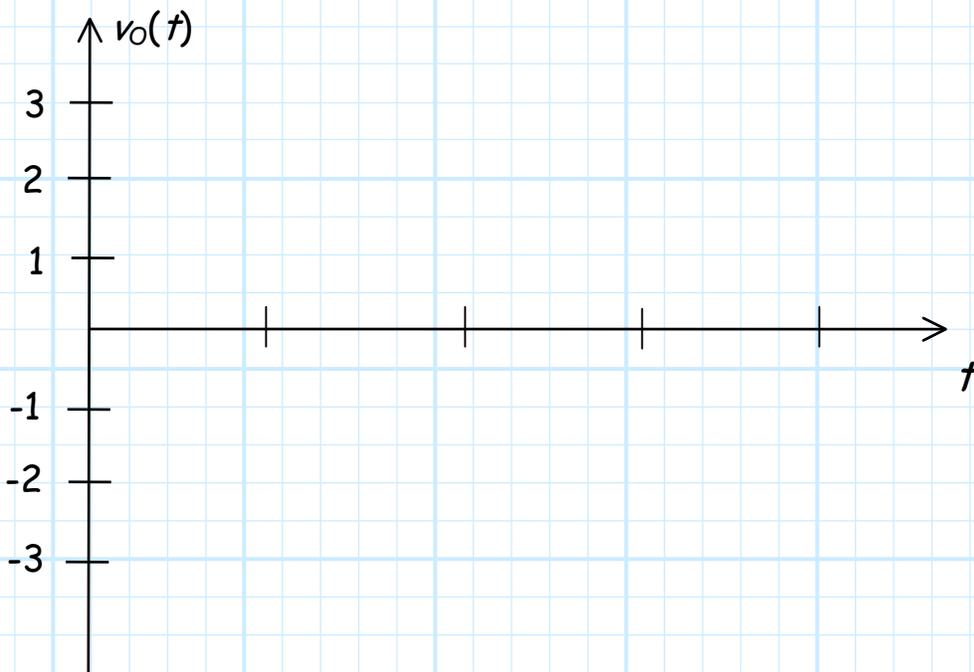


**Special Problem 3.5-6**

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

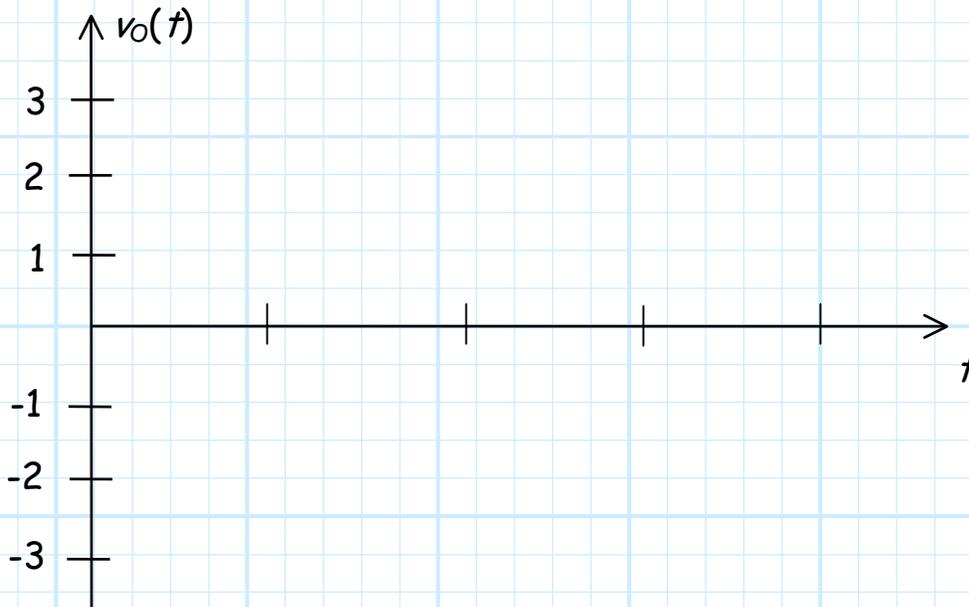


1. Carefully sketch below the **output signal**  $v_o(t)$  if this rectifier were an **IDEAL full-wave rectifier** (you are not required to show any other work besides the sketch).



**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).

$$v_o = \begin{cases} v_s & \text{for } v_s < 0.5 \\ -v_s + 1 & \text{for } v_s > 0.5 \end{cases}$$

