

### Special Problem IV.B-2

A plane wave propagating in the  $x$ -direction passes through a material with dielectric constant  $\epsilon_r = 4 + j4$ .

If  $\lambda = 10$  cm and  $|\bar{W}(x=0)| = 1$  W/m<sup>2</sup>, what is  $|\bar{W}(x=1)|$ ?