Special Problem 6.F-3

A transmitter delivers **10 Watts** to a rectangular horn antenna with efficiency $e = 1$.

The signal **wavelength** is $\lambda = 0.1\, m$.

This antenna produces a **maximum intensity** of 2000 W/steraidian.

This antenna exhibits an **azimuthal beamwidth** of $\beta_\phi = 0.05$ radians.

1. Determine **elevation beamwidth** β_θ of this antenna.

2. Determine the **width** (in meters) of this antenna.