OPHW2-7 Soln)

x is the separation of the sources
y is the distance from the sources to the point of observation = 36,000 km = 3.6×10^7 m
The antenna aperture is D = 0.4 m
Since x is small compared to y, we can approximate:
$x/y = \tan \theta_R \sim \theta_R = 1.22\lambda/D$
So,
$x = 1.22\lambda\ y\ /D = 1.22*0.036*3.6 \times 10^7/0.4 = 4 \times 10^6$ m