OPHW2-1 Soln)

$d = 3x10^{-4}m$
$\lambda_R = 0.660x10^{-6}m$ (red)
$\lambda_B = 0.470x10^{-6}m$ (blue)
$D = 5m$
Bright spots appear when $d \sin\theta_m = m\lambda$ $m = 0, {}^{+}/_{-}1, {}^{+}/_{-}2, ...$
In this case, we're interested in when $m = 1$ for the first bright fringe.
Since $D>>d$ and $\tan\theta_m = x_m/D$, we can approximate:
$x_1/D = \tan\theta_m \sim \sin\theta_m = 1\lambda/d = \lambda/d$
$x_1 \sim \lambda D/d$
So the difference in the positions of the first maximums for the two colors is given by:
$x_{1R} - x_{1B} = \lambda_R D/d - \lambda_B D/d = 0.660x10^{-6}(5)/3x10^{-4} - 0.470x10^{-6}(5)/3x10^{-4} =$ **$3.17x10^{-3}$ m**