

46. Letting $R = \lambda/\Delta\lambda = Nm$, we solve for N :

$$N = \frac{\lambda}{m\Delta\lambda} = \frac{(589.6 \text{ nm} + 589.0 \text{ nm})/2}{2(589.6 \text{ nm} - 589.0 \text{ nm})} = 491 .$$