	2-slit	1-slit
Bright fringe	$n\lambda = d\sin\theta$, $n = 0, 1, 2\ldots$	$\left(m+\frac{1}{2}\right)\lambda = W\sin\theta$, $m = 1, 2, 3\ldots$ (order-number)
Dark fringe	$\left(n+\frac{1}{2}\right)\lambda = d\sin\theta$, $n = 0, 1, 2\ldots$	$m\lambda = W\sin\theta$, $m = 1, 2, 3\ldots$

- d: distance between slits
- W: slit width (only 1 slit)
- highest order bright fringe: $\sin\theta = 1$, $\left(m+\frac{1}{2}\right)\lambda = W \rightarrow m = \frac{W}{\lambda} - \frac{1}{2}$
- # of bright fringes: $2m+1$

$$\Gamma = \left(m+\frac{1}{2}\right)\lambda$$

$$\left(m+\frac{1}{2}\right)\lambda = W\sin\theta$$

- highest order: $\sin\theta = 1$, $m_{max} = \frac{W}{\lambda} - \frac{1}{2}$
- # of bright fringes: $2m_{max}+1$ ← central diffraction maximum

slit $\parallel$ to screen, beams of light $\approx$ parallel

+ small-angle approximation: $\sin\theta \approx \tan\theta$

$$\left(m+\frac{1}{2}\right)\lambda = W\left(\frac{y}{L}\right)$$

$$y_m \approx \left(m+\frac{1}{2}\right)\frac{\lambda L}{W} \rightarrow \Delta y \approx \frac{\lambda L}{W} \rightarrow \lambda \approx \frac{W\Delta y}{L}$$

m^{th} bright fringe