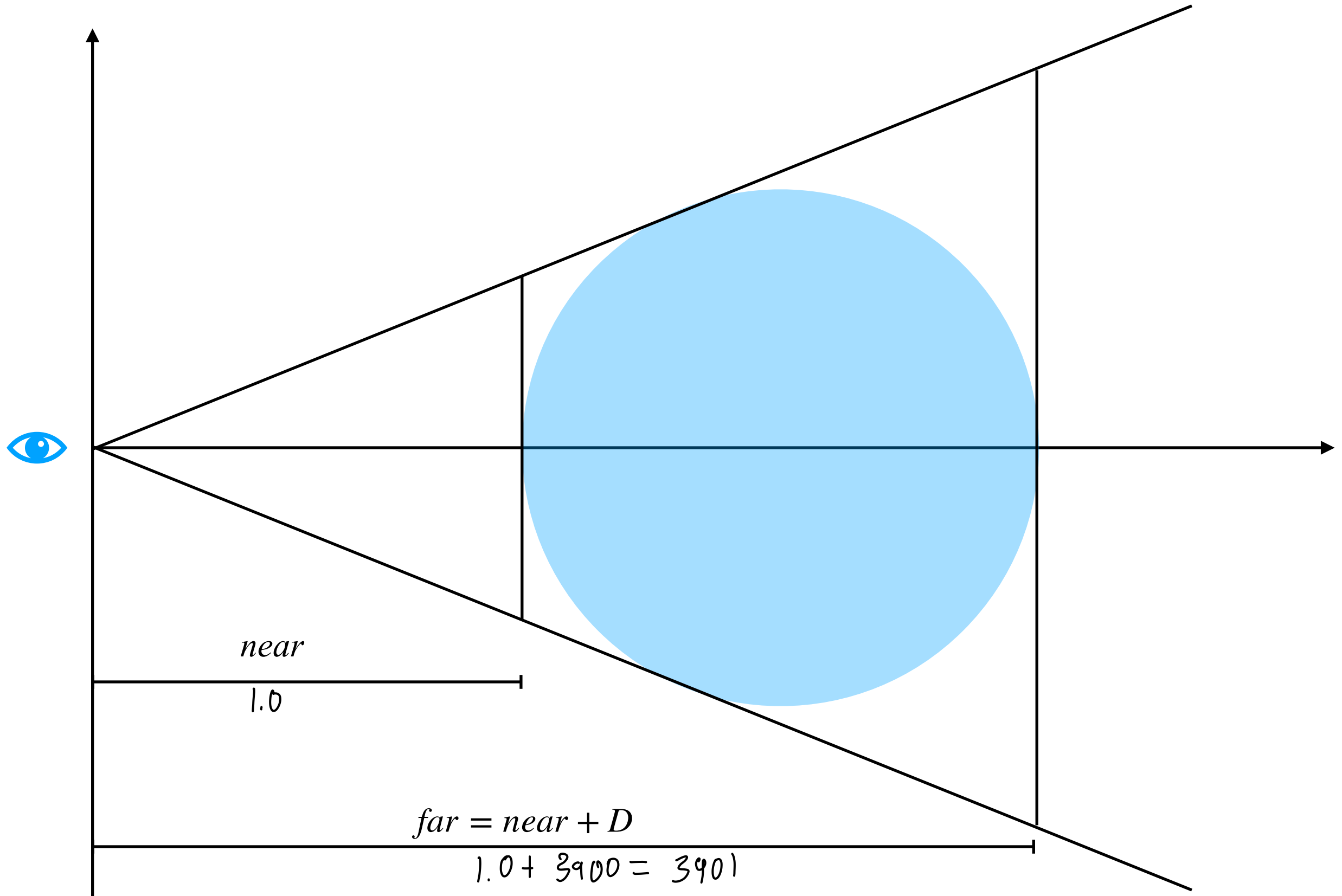


Viewing Frustum - *near* and *far* Parameters

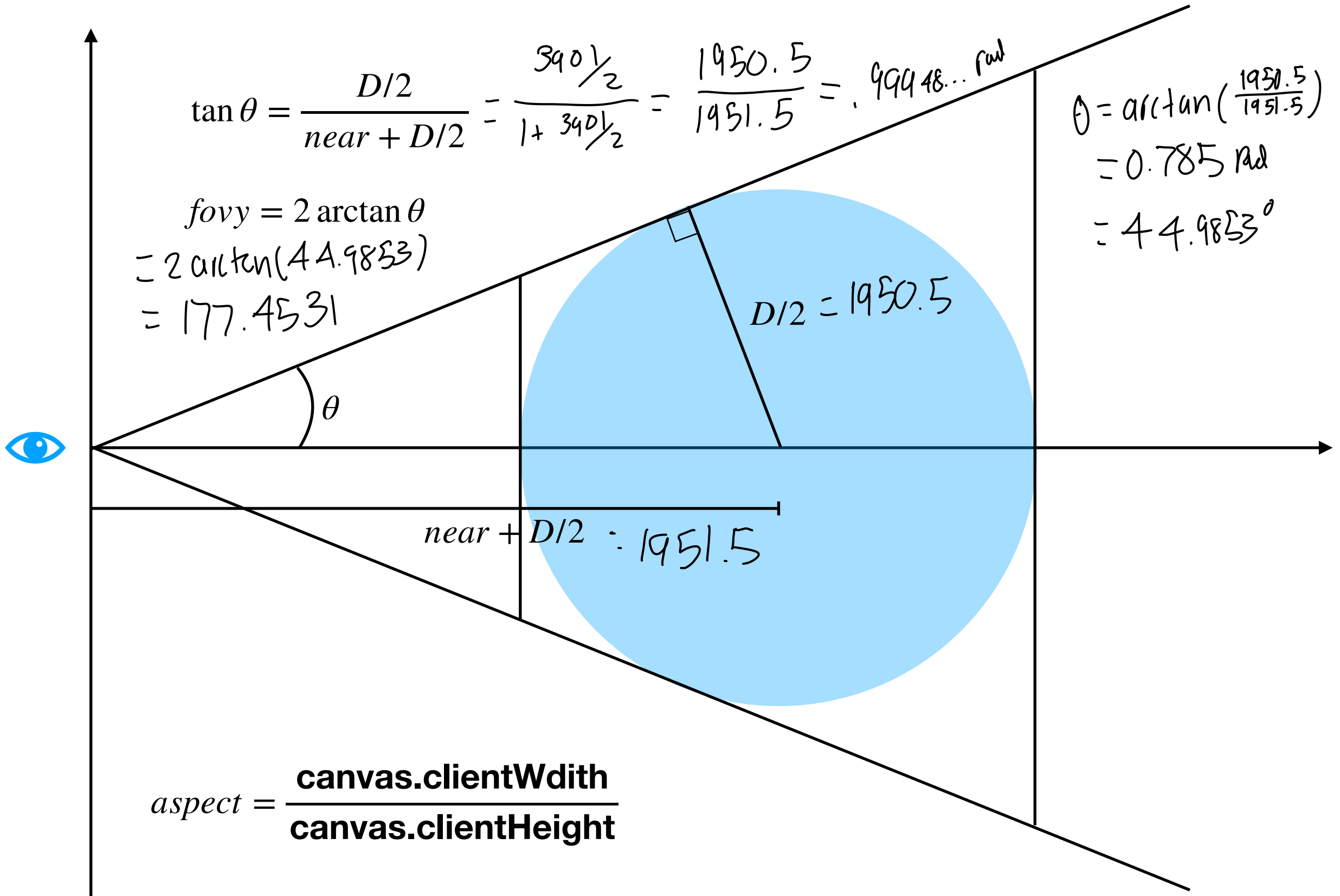


Viewing Frustum - *fovy* and *aspect* Parameters

$$\tan \theta = \frac{D/2}{near + D/2} = \frac{3901/2}{1 + 3901/2} = \frac{1950.5}{1951.5} = .99948... \text{ rad}$$

$$\begin{aligned} fovy &= 2 \arctan \theta \\ &= 2 \arctan(44.9853) \\ &= 177.4531 \end{aligned}$$

$$\begin{aligned} \theta &= \arctan\left(\frac{1950.5}{1951.5}\right) \\ &= 0.785 \text{ rad} \\ &= 44.9853^\circ \end{aligned}$$



$$aspect = \frac{\text{canvas.clientWidth}}{\text{canvas.clientHeight}}$$