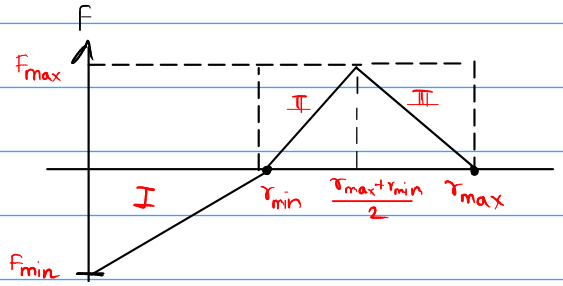

$r < r_{min}$:

$y = mx + b$

$F_{min} = m(0) + b$

$b = + F_{min}$

$0 = m(r_{min}) + f_{min}$

$m = \frac{-f_{min}}{r_{min}}$

$\Rightarrow \quad y(r) = -\frac{f_{min}}{r_{min}} \cdot r + f_{min}$

Region II : $\quad y = mx + b$

$0 = m \cdot r_{min} + b$

$-F_{max} = m \cdot \left(\frac{r_{max}+r_{min}}{2}\right) + b$

$-f_{max} = m\left(\frac{r_{min}-r_{max}}{2}\right)$ $\qquad m = \frac{2 f_{max}}{r_{max}-r_{min}}$

$b = -\frac{2 f_{max} r_{min}}{r_{max}-r_{min}}$

II $\quad y = \frac{2 f_{max}}{r_{max}-r_{min}} \left[r - r_{min} \right]$

III : $\quad y = \frac{2 f_{max}}{r_{max}-r_{min}} \left[r_{max} - r \right]$