



$$i := 0, 1 \dots 18$$

$$\alpha_i := i \cdot 5 \text{deg}$$

$$\beta := \text{atan}(0.5)$$

$$\gamma_i := \frac{\pi}{2} + \alpha_i - \beta$$

$$L_{1_i} := \left( 4.50^2 + 5 - 2 \cdot 4.50 \cdot 5^{0.5} \cdot \cos(\gamma_i) \right)^{0.5} \quad \theta_i := \text{asin} \left( \frac{\sin(\gamma_i) \cdot 4.50}{L_{1_i}} \right)$$

$$L_{2_i} := \sin(\theta_i) \cdot 5^{0.5}$$

$$L_{3_i} := 28.8 \cdot \cos(\alpha_i)$$

**SM = 0:**

$$F_{\text{Cyl}_i} := \frac{8000 \cdot L_{3_i}}{L_{2_i}}$$

$$\text{Max} := \max(F_{\text{Cyl}})$$

$$\text{Max} = 103983$$

