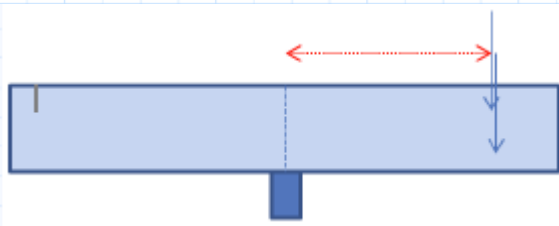


Jordan's Ramp Worksheet



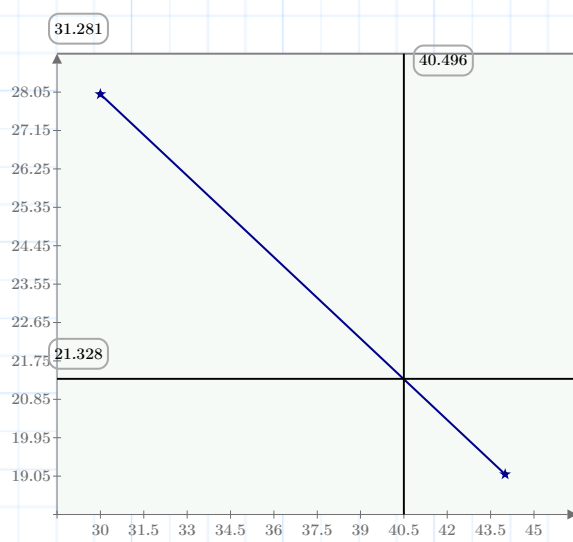
$$W_{bat} := 14 \text{ lb}$$

$$Dist := \begin{bmatrix} 30 \text{ in} \\ 44 \text{ in} \end{bmatrix} \quad i := 0 \dots 2$$

$$V_{Moment} := Dist \cdot (2 \cdot W_{bat}) \quad V_{Moment} := \begin{bmatrix} 840 \\ 1232 \end{bmatrix} \text{ lb} \cdot \text{in}$$

$$V_{Force} := \frac{V_{Moment}_0}{Dist} = \begin{bmatrix} 28 \\ 19.091 \end{bmatrix} \text{ lb}$$

How do we lower the ramp to climb on board?



$$C := \text{line}(Dist, V_{Force}) = \begin{bmatrix} 21.36 \text{ kg} \\ -11.364 \frac{\text{kg}}{\text{m}} \end{bmatrix}$$

$$F_m(d) := C_0 + C_1 \cdot d$$

$$F_m(37 \text{ in}) = 23.545 \text{ lb}$$

$$C_1 = -0.636 \frac{\text{lb}}{\text{in}}$$