$$X_a := 7.016$$

$$N := \text{round}\left(4 + \frac{X_a}{2} + 1\right) = 9$$

$$\nu\text{※} := 0.3404$$

$$ber_x(x) := \sum_{n=0}^{N}\left[(-1)^n \cdot \frac{\left(\frac{x}{2}\right)^{4n}}{((2\cdot n)!)^2}\right] \qquad bei_x(x) := \sum_{n=1}^{N}\left[(-1)^{n-1} \cdot \frac{\left(\frac{x}{2}\right)^{4\cdot n-2}}{((2\cdot n-1)!)^2}\right]$$

$$ber := ber_x(X_a) \qquad bei := bei_x(X_a)$$

$$ber = [-3.426] \qquad bei = [-21.496]$$

$$ber'_x(x) := \sum_{n=1}^{N}\left[\frac{(-1)^n \cdot (2\cdot n) \cdot \left(\frac{x}{2}\right)^{4n-1}}{((2\cdot n)!)^2}\right] \qquad bei'_x(x) := \sum_{n=1}^{N}\left[\frac{(-1)^{n-1} \cdot (2\cdot n-1) \cdot \left(\frac{x}{2}\right)^{4n-3}}{((2\cdot n-1)!)^2}\right]$$

$$ber' := ber'_x(X_a) \qquad bei' := bei'_x(X_a)$$

$$ber' = [13.077] \qquad bei' = [-16.061]$$

$$\Psi_{1x}(x) := bei_x(x) + \left(\frac{1-\nu\text{※}}{x}\right) \cdot ber'_x(x) \qquad \Psi_{2x}(x) := ber_x(x) - \left(\frac{1-\nu\text{※}}{x}\right) \cdot bei'_x(x)$$

$$\Psi_1 := \Psi_{1x}(X_a) \qquad \Psi_2 := \Psi_{2x}(X_a)$$

$$\Psi_1 = [-20.267] \qquad \Psi_2 = [-1.916]$$

$$Z_a := bei' \cdot \Psi_2 - ber' \cdot \Psi_1 = 295.804$$

$$P_e := \begin{bmatrix} -96.973 \\ 116.8 \\ 19.826 \\ 0.000 \\ -261.115 \\ -47.343 \\ -144.316 \\ -164.142 \end{bmatrix} \frac{lb}{in^2} \qquad Q_3 := \begin{bmatrix} -0.06746 \\ -0.07938 \\ -0.13772 \\ 0.0000 \\ -0.06192 \\ -0.00749 \\ -0.04778 \\ 0.05865 \end{bmatrix}$$

$numpoints := 20$ $\quad j := 1 .. numpoints$ $\quad X_j := \frac{j \cdot 1}{numpoints}$

$x := X \cdot X_a$

$$Q_v(x) := \frac{\overrightarrow{\Psi_{2x}(x) \cdot \Psi_1 - \Psi_{1x}(x) \cdot \Psi_2}}{X_a \cdot Z_a} \qquad Q_m(x) := \frac{\overrightarrow{\Psi_{2x}(x) \cdot bei' - \Psi_{1x}(x) \cdot ber'}}{Z_a}$$

$$F_{mx1}(x) := \text{for } i \in 0 .. numpoints$$
$$\quad \text{if } P_e = 0$$
$$\quad\quad 0$$
$$\quad \text{else}$$
$$\quad\quad \frac{Q_v(x) + Q_3 \cdot Q_m(x)}{2}$$

$F_m := F_{mx1}(x)$

$$F_{mx1}(x) := 0 \text{ if } P_{e_1} = 0$$
$$\quad \frac{Q_v(x) + Q_{3_1} \cdot Q_m(x)}{2}$$

$$F_{mx1}(x) := 0 \text{ if } P_{e_1} = 0$$
$$\quad 0$$
$$\text{else}$$
$$\quad \frac{Q_v(x) + Q_{3_1} \cdot Q_m(x)}{2}$$