The maximum and minimum values of the pressure on the sphere are thus:

$$p_{\max}(a) = p_\infty + \frac{1}{2}\rho U^2, \quad p_{\min}(a) = p_\infty - \frac{5}{8}\rho\, U^2$$

taking place at $\theta = 0$ and $\theta = \pi$ (at the location of the rear and forward stagnation points)

In[5]:= ex