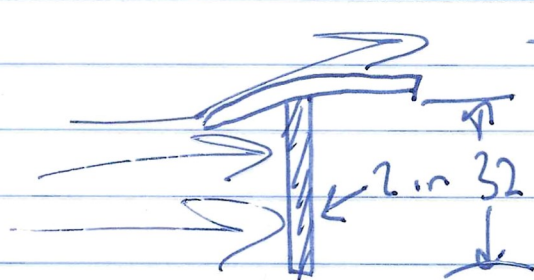


Home work 2.2

17.14

wing on a truck car



$-20^\circ \text{F} @ 150 \text{ mph}$

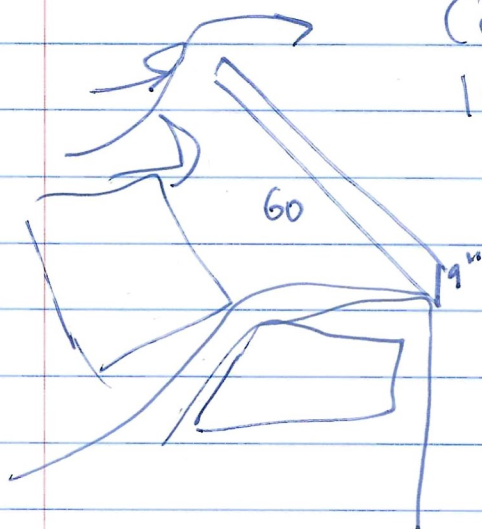
air density = $.0765 \frac{\text{lb}}{\text{ft}^3}$

$$\text{Projected area} = 2 \times 32 = 64 \text{ in}^2 = .44 \text{ ft}^2$$

$$150 \text{ mph} = 220 \text{ Fps}$$

$$.44 \cdot 220^2 \cdot \frac{1}{2} \cdot .0765 = 67.83$$

17.16



Cross section = 3.75 ft^2

100 mph = 146.66

$$3.75 \cdot 146.66^2 \cdot .0745 \cdot \frac{1}{2} = 250.3$$