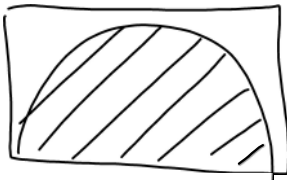


CP - Jan 9
 CLT Describe pressure in terms of force and area.

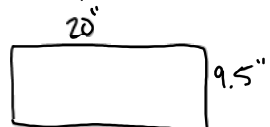


Area weight

$$\text{Pressure} = \frac{\text{Force}}{\text{Area}} \quad \frac{140 \text{ lbs}}{110 \text{ in}^2} =$$

$$\rightarrow 1.27 \frac{\text{lbs}}{\text{in}^2}$$


How many Nails per in²?



Area 190 in²
 Nails 625

$$\frac{625 \text{ Nails}}{190 \text{ in}^2} \rightarrow 3.2 \frac{\text{Nails}}{\text{in}^2}$$

$$110 \text{ in}^2 \left(\frac{3.2 \text{ Nails}}{\text{in}^2} \right) = 352 \text{ Nails}$$

$$\frac{140 \text{ lbs}}{352 \text{ nails}} = .4 \frac{\text{lbs}}{\text{nails}}$$


Area of a hand 28 in²

$$\text{Pressure} = 14.7 \frac{\text{lbs}}{\text{in}^2}$$

Pressure on hand = 28 in² x 14.7 $\frac{\text{lbs}}{\text{in}^2}$

$$= 411.6 \text{ lbs}$$