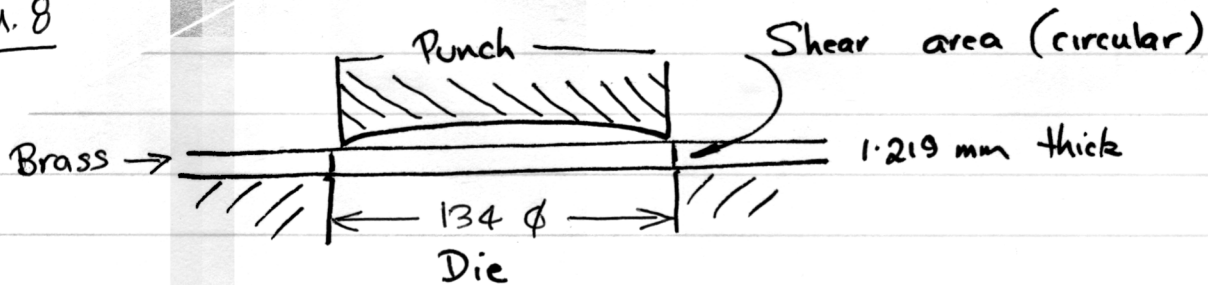


Q. 8



$$\text{Shear Area} = \text{thickness} \times \pi \text{ Diameter}$$

$$= 1.219 \times 10^{-3} \times \pi (134 \times 10^{-3})$$

$$\tau = 220 \times 10^6 \text{ N/m}^2$$

$$\tau = \frac{\text{Shear force}}{\text{Shear area}}$$

$$\begin{aligned} \therefore \text{Shear force} &= \tau \times \text{Area} = 220 \times 10^6 \times 1.219 \times 10^{-3} \pi 134 \times 10^{-3} \\ &= 112900 \text{ N or } \underline{\underline{112.9 \text{ kW}}} \end{aligned}$$