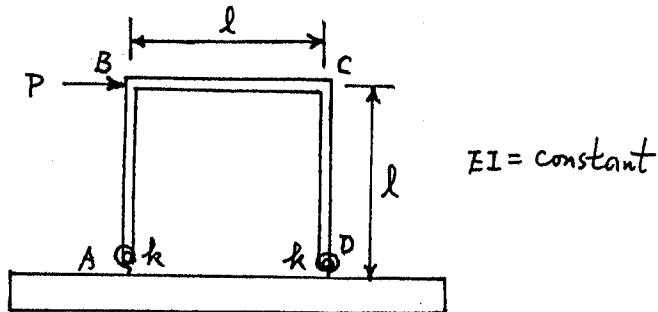
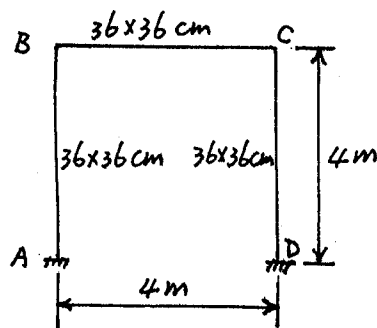


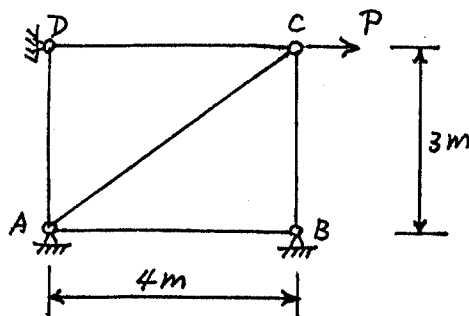
1. 如圖所示之構架，如基座樑與柱非剛接，假設接頭抗扭勁度  $k = \alpha EI/l$ 。
- (1) 試求 AB 柱之反曲點距基座樑之高度。(15%)
  - (2) 試討論  $\alpha \rightarrow \infty$ ,  $\alpha \rightarrow 0$  時反曲點位置有何變化，何故？(10%)



2. 如圖所示之構架，構件之斷面如圖示。假設材料之彈性模數  $E = 2 \times 10^5 \text{ kg/cm}^2$ 。如 D 點向下沈陷 2cm，
- (1) 試求此構架之支點反力、C 點位移。(15%)
  - (2) 試繪此構架之軸力圖、剪力圖、彎矩圖與彈性變形曲線。(10%)



3. 如圖所示之桁架，假設  $AE = \text{constant}$ 。試求此桁架之支點反力、桿件內力與 C 點水平位移。(25%)



4. 如圖所示之樑，
- (1) 試求支點反力、C 點位移與轉角。(15%)
  - (2) 試繪此樑之剪力圖、彎矩圖與彈性變形曲線。(10%)

