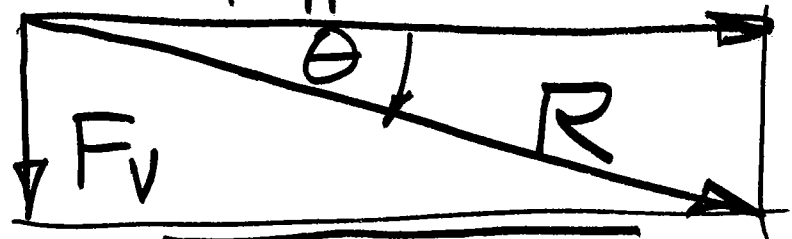


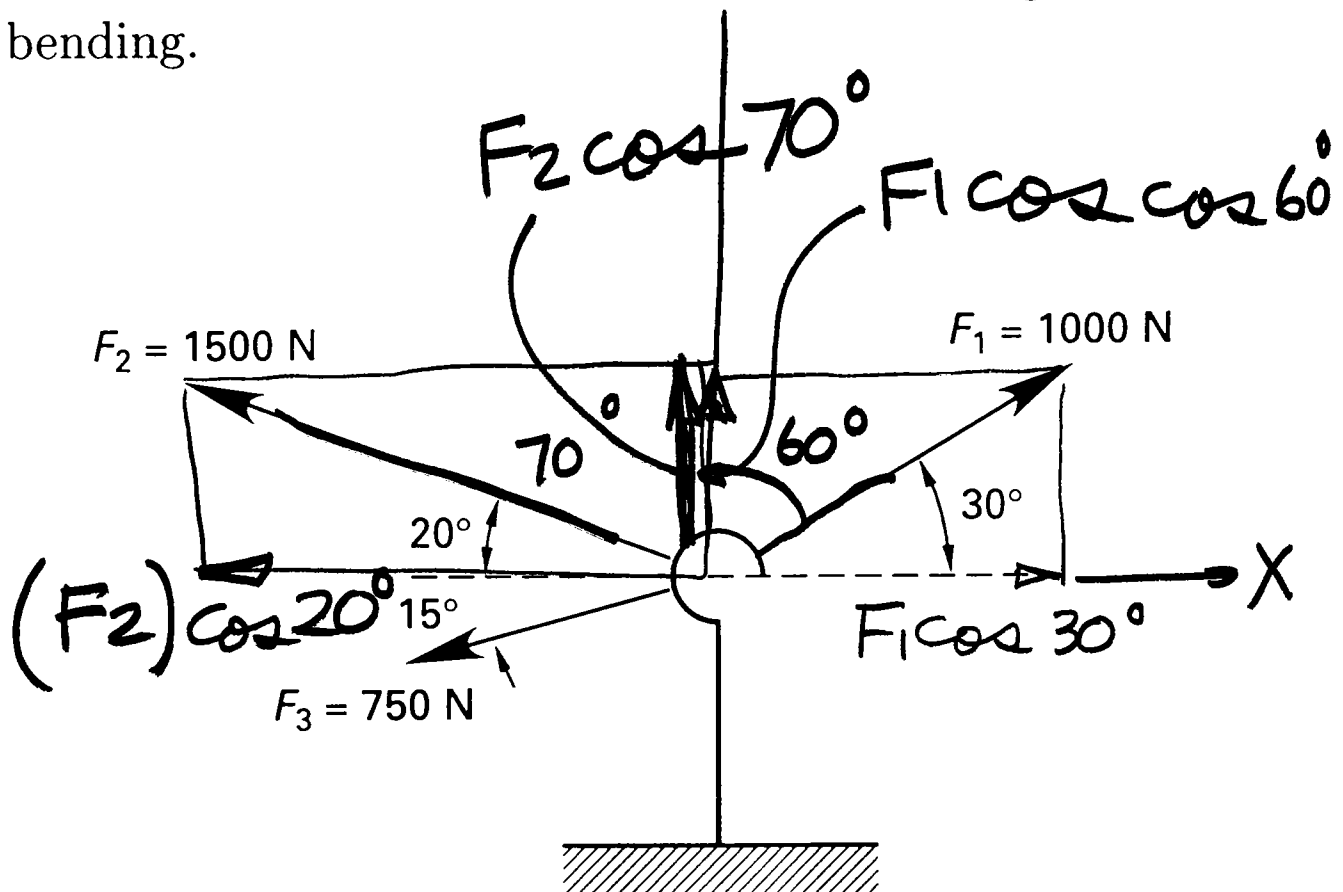
$$\theta = \tan^{-1} \frac{F_v}{F_H}$$



$$R = \sqrt{F_H^2 + F_v^2} =$$

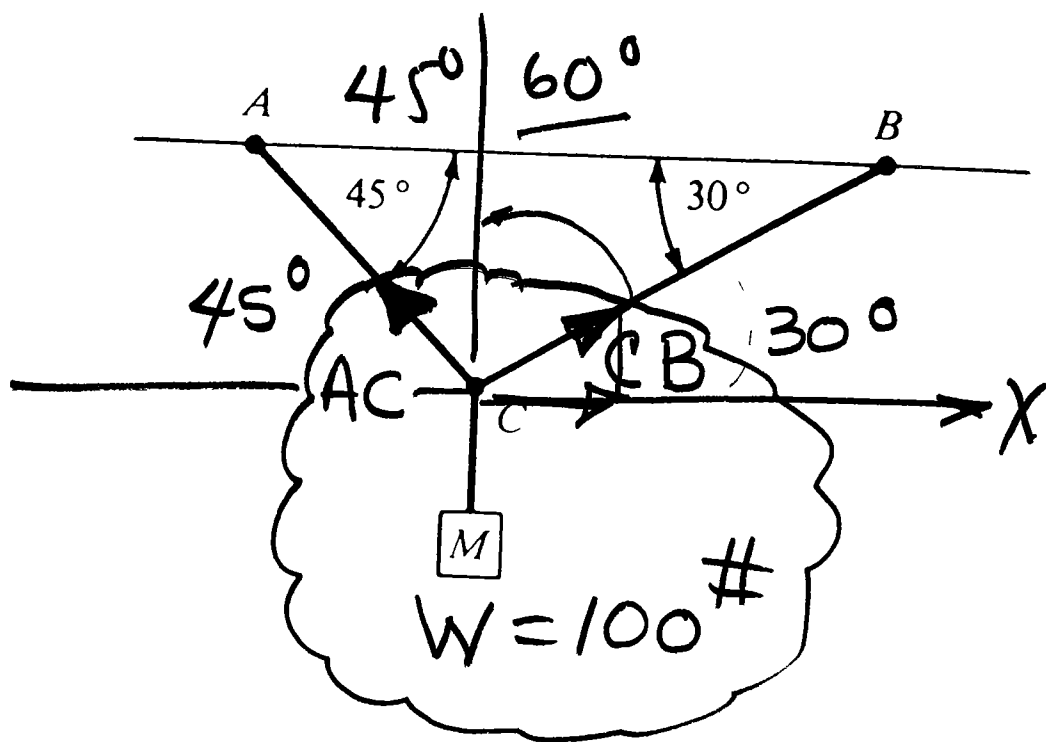
## 10-10 EIT Review Manual

4. Three forces act on a hook. Determine the magnitude of the resultant of the forces. Neglect hook bending.



- (A) 989 N
- (B) 1140 N
- (C) 1250 N
- (D) 1510 N

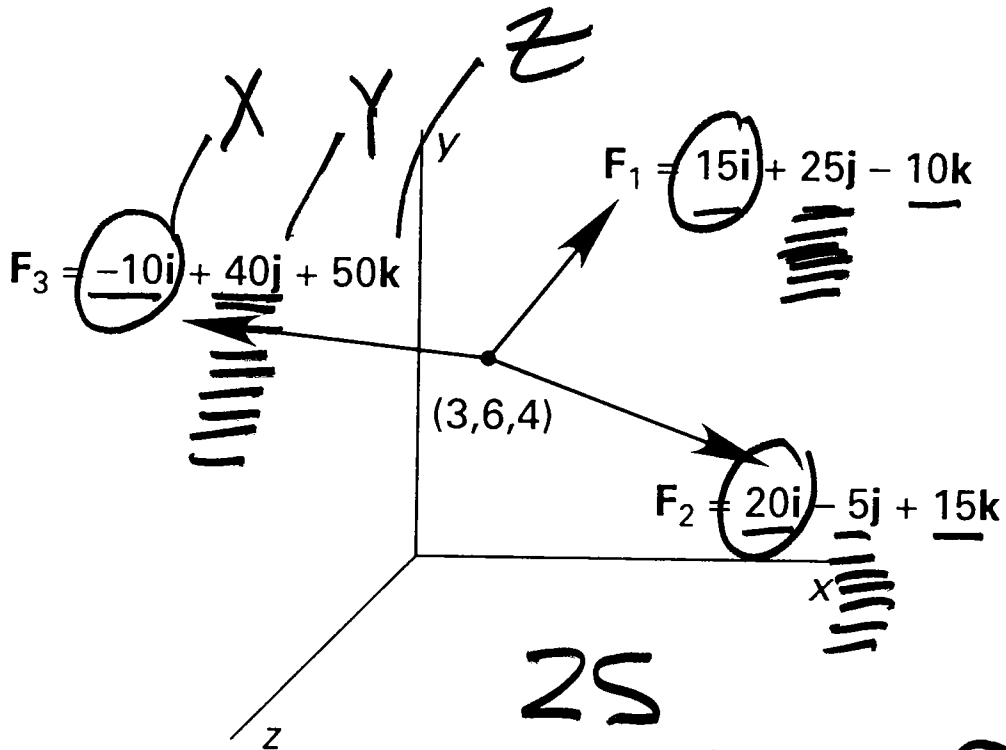
#342 694



$$\sum F_{\downarrow} = 0 = -100\# + AC \cos 45^\circ + CB \cos 60^\circ$$

$$\sum F_{\rightarrow} = 0 = -AC \cos 45^\circ + CB \cos 30^\circ$$

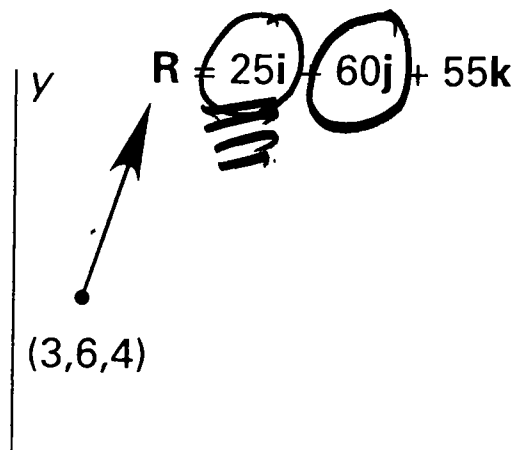
1. What is the resultant  $R$  of the system of forces shown?

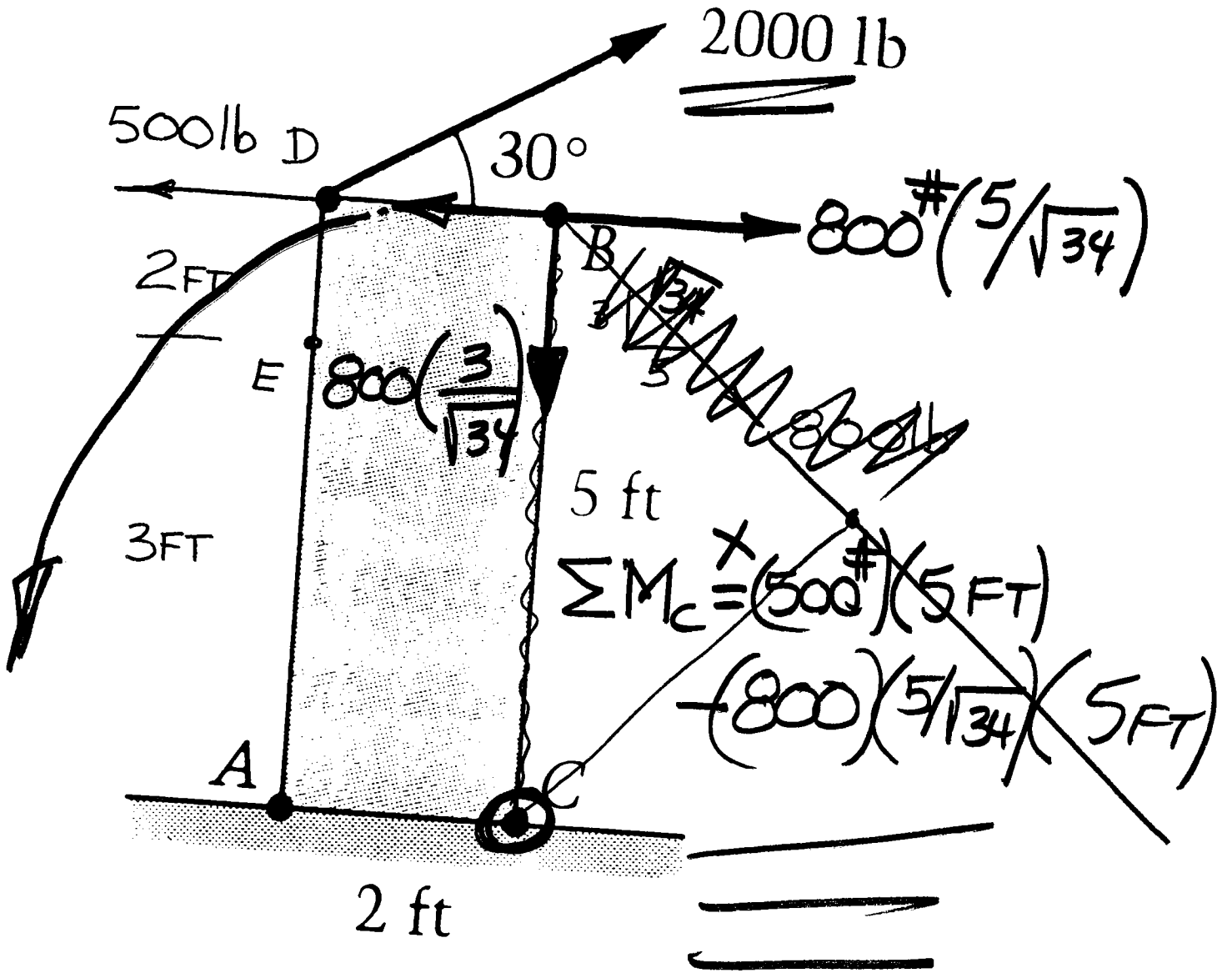


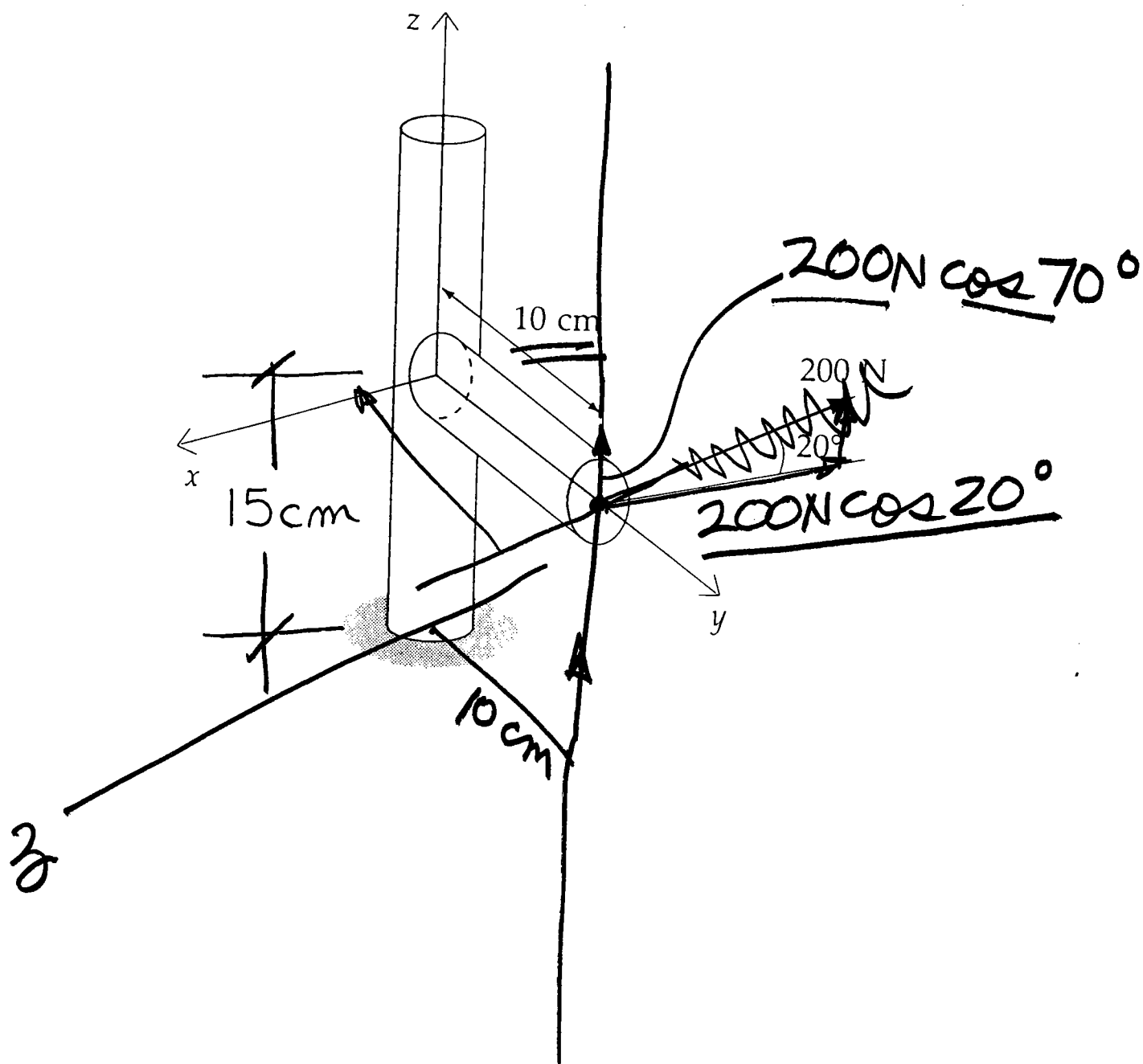
25

- e)  $R = 25i + 32j + 27k$
- d)  $R = 32i - \dots$
- c)  $R = +60i - \dots$
- b)  $R = -10i + \dots$

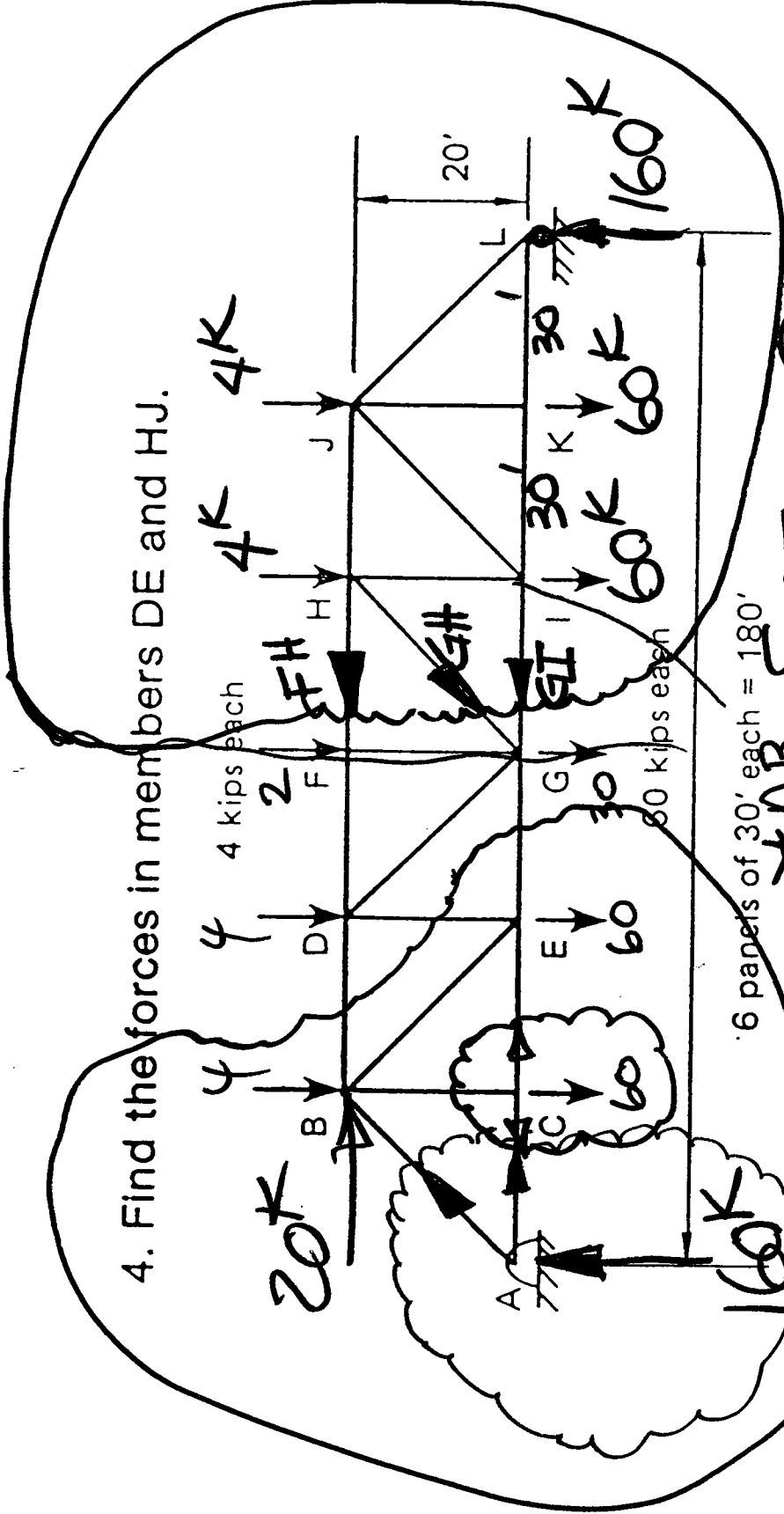
(A)







4. Find the forces in members DE and HJ.



6 panels of 30' each = 180'

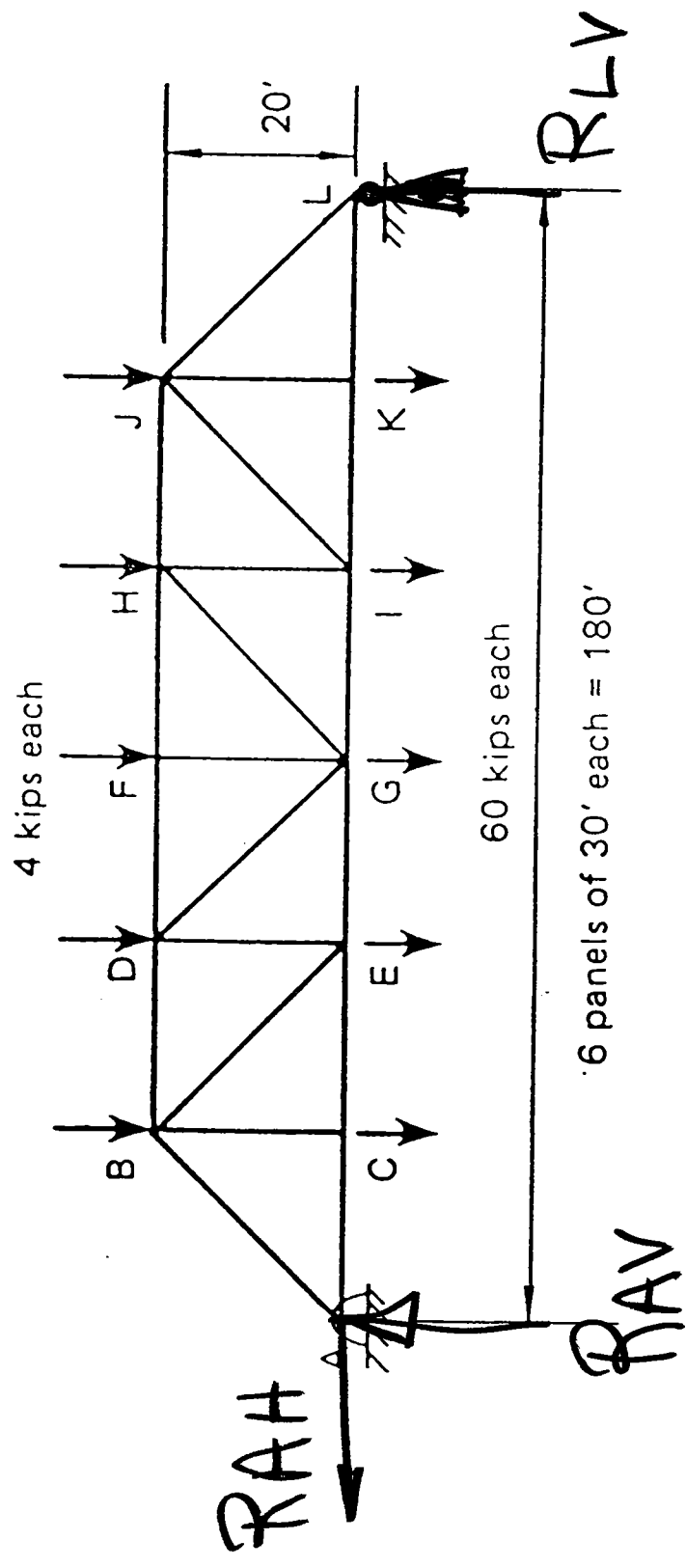
$\sum F_H = 0$   
 $\sum F_V = 0 = +160k + AB \left(\frac{30}{H}\right) - 160k \left(\frac{H}{20}\right) = \underline{\underline{AB}}$

$\sum F_H = 0$   
 $160k \sum F_H = 0 = +AC - AB \left(\frac{30}{H}\right)$   
 $AC = + \underline{\underline{AB}} \left(\frac{30}{H}\right)$

$\sum F_V = 0$

43  
 COMP TENS

4. Find the forces in members DE and HJ.



4. Find the forces in members DE and HJ.

