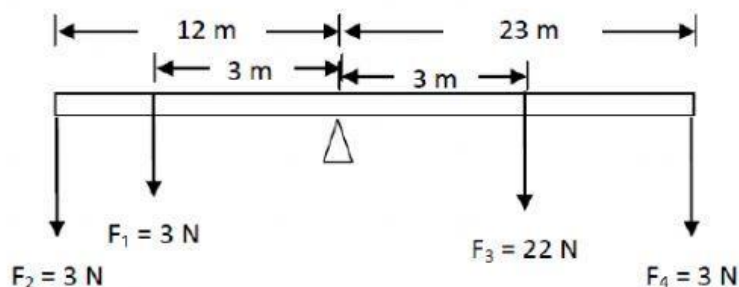


Forces and moments

- 1 Find (i) The moments due to **each force** and its corresponding direction.
(ii) The resultant moments and its direction.
Assume the plank has negligible mass.

(a)



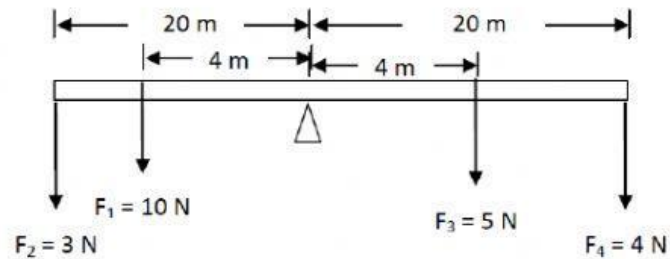
Working and answers

Moments due to F_1	
Moments due to F_2	
Moments due to F_3	
Moments due to F_4	
Total clockwise moments	
Total anti-clockwise moments	
Resultant moment	
Direction of rotation	

Model answers – enter in this format

Moments due to F_1	56Nm clockwise
Moments due to F_2	14Nm clockwise
Moments due to F_3	40Nm anticlockwise
Moments due to F_4	16Nm anticlockwise
Total clockwise moments	70Nm
Total anti-clockwise moments	56Nm
Resultant moment	14Nm clockwise ('0' if there is no R.M.)
Direction of rotation	Clockwise

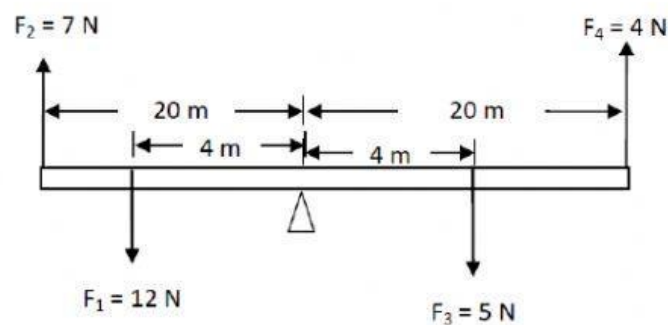
(b)



Working and answers

Moments due to F1	
Moments due to F2	
Moments due to F3	
Moments due to F4	
Total clockwise moments	
Total anti-clockwise moments	
Resultant moment	
Direction of rotation	

(c)



Working and answers

Moments due to F1	
Moments due to F2	
Moments due to F3	
Moments due to F4	
Total clockwise moments	

Total anti-clockwise moments	
Resultant moment	
Direction of rotation	