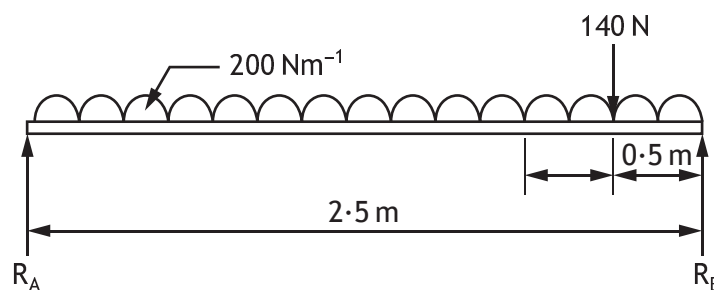


4. Flat pack furniture and other items are to be stored on shelving in a home improvement store. The shelving must be designed to support both point loads and uniform distributed loads.



A simplified free body diagram of the forces expected on one shelf is shown below.



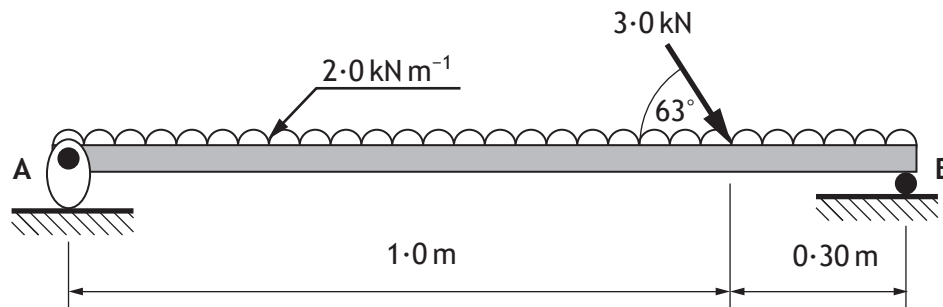
Calculate the reaction force  $R_B$ .

3



6. (continued)

During the design phase, a scale model of a particular loading condition was constructed, as shown below.



(d) Determine the magnitude and direction of the reaction at A.

4