

EXERCISE 3

4.1. Draw the influence lines for the vertical reaction at A, the shear at C, and the moment at C.



Fig 4.1

4.2. Draw the influence lines for the vertical reaction at A and B, the shear at C, and the moment at C.

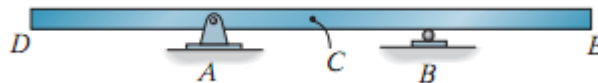


Fig 4.2

4.3. The beam supports a distributed live load of 2 kN/m and single concentrated load of 6 kN . The dead load is 4 kN/m . Determine (a) the maximum vertical positive reaction at C, (b) the maximum negative moment at A.

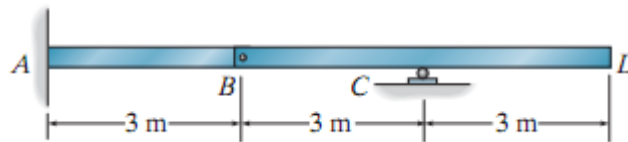


Fig 4.3

4.4. Draw the influence lines for (a) the vertical reaction at A, (b) the vertical reaction at B, (c) the shear just to the right of the support at A, and (d) the moment at C. Assume the support at A is a pin and B is a roller.

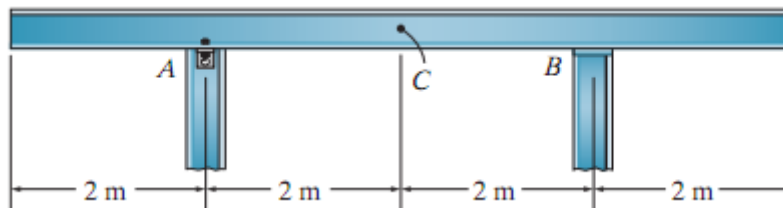


Fig 4.4