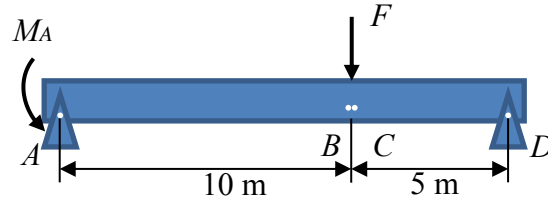


4. The beam is subjected to a force $F \sim N(15, 1.5)$ kN and a bending moment $M_A \sim N(30, 3^2)$ kN·m as shown. Determine the distribution of internal normal force, shear force, and bending moment acting just to the right of point C . F and M_A are independently distributed.



Solution

Normal force $N_C = 0$; shear force $V_C \sim N(8, 1.02)$ kN; bending moment $M_C \sim N(40, 5.1)$ kN·m.