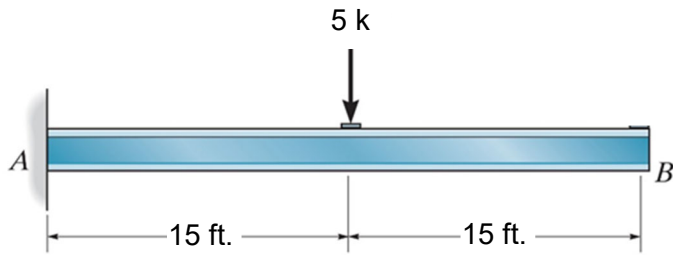


Example 8b-0: Determine the slope and the displacement at point B for the following beam.

Assume that $E = 30,000$ ksi and $I = 800$ in⁴.

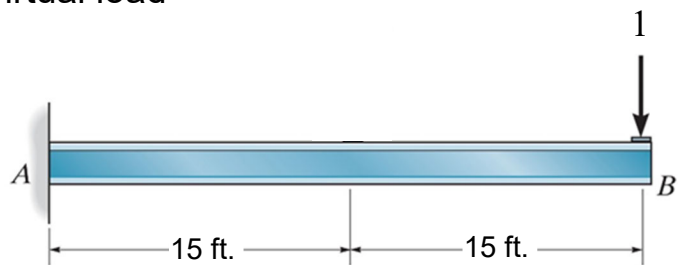
Real loads



Example 8b-0: Determine the slope and the displacement at point B for the following beam.

Assume that $E = 30,000$ ksi and $I = 800$ in⁴.

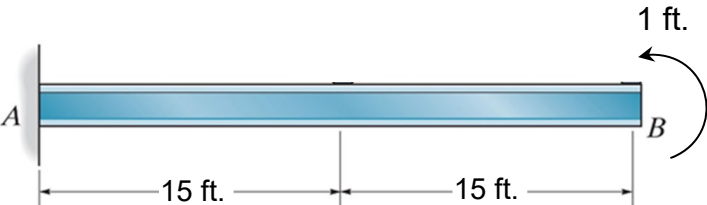
Virtual load



Example 8b-0: Determine the slope and the displacement at point B for the following beam.

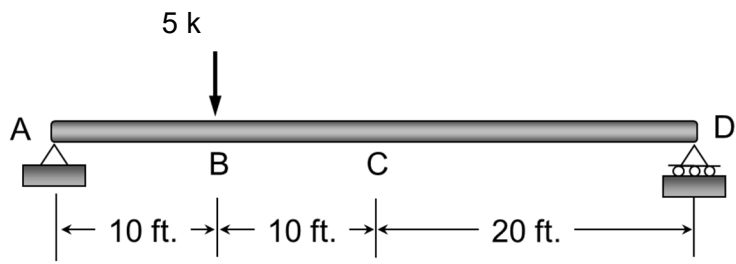
Assume that $E = 30,000$ ksi and $I = 800$ in⁴.

Virtual moment



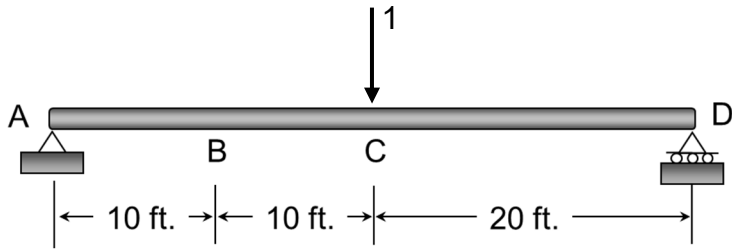
Example 8b-1: Determine the displacement at C. Assume $I = 240 \text{ in}^4$, $E = 29(10^3) \text{ ksi}$.

Real loads



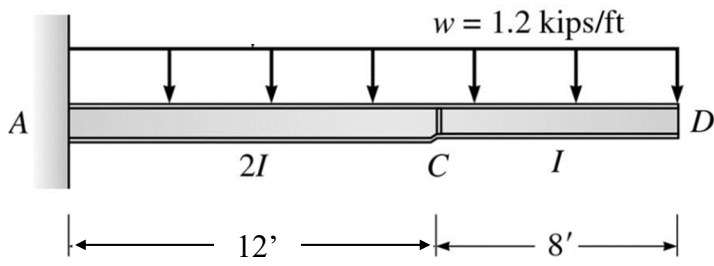
Example 8b-1: Determine the displacement at C. Assume $I = 240 \text{ in}^4$, $E = 29(10^3) \text{ ksi}$.

Virtual load



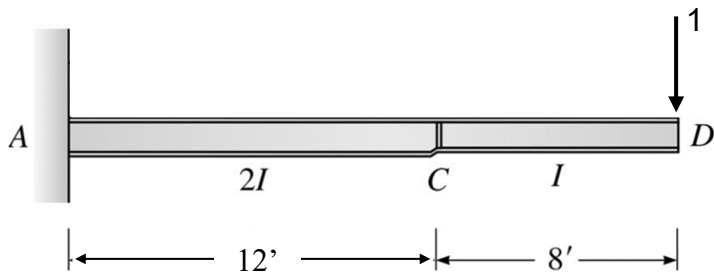
Example 8b-2: Determine the displacement at D . Assume $I = 400 \text{ in}^4$, $E = 29(10^3) \text{ ksi}$.

Real loads



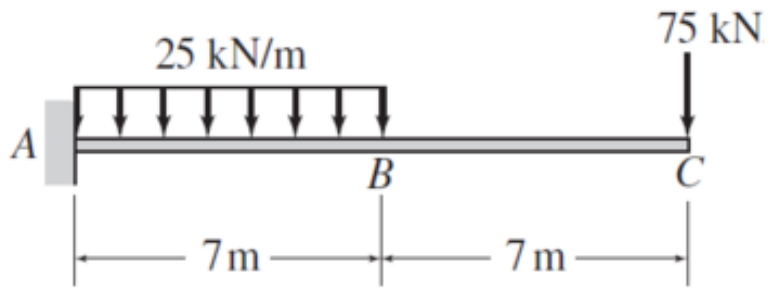
Example 8b-2: Determine the displacement at D . Assume $I = 400 \text{ in}^4$, $E = 29(10^3) \text{ ksi}$.

Virtual load



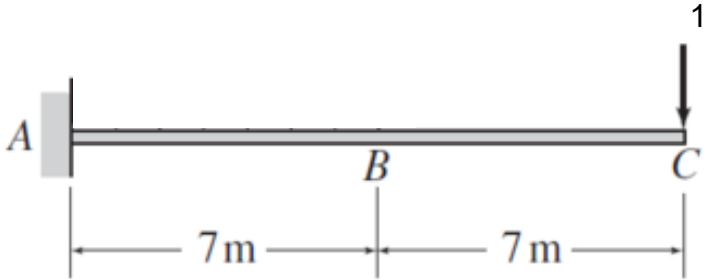
Example 8b-3: Determine the slope and displacement at C. Assume $I = 2,340 (10^6)$ mm^4 and 70 GPa.

Real loads



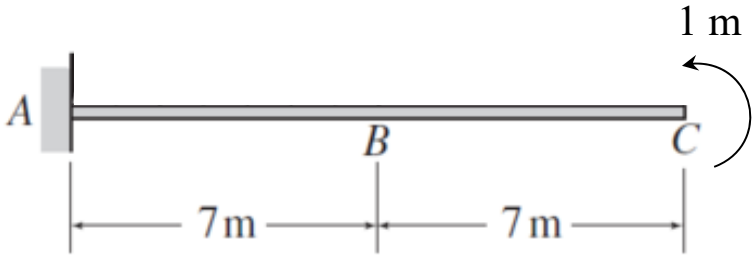
Example 8b-3: Determine the slope and displacement at C. Assume $I = 2,340 (10^6)$ mm⁴ and 70 GPa.

Virtual load



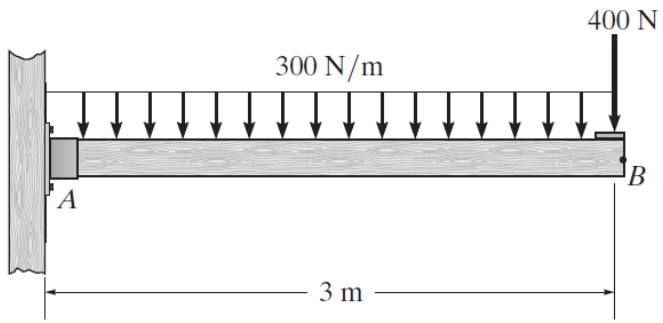
Example 8b-3: Determine the slope and displacement at C. Assume $I = 2,340 (10^6)$ mm^4 and 70 GPa.

Virtual moment



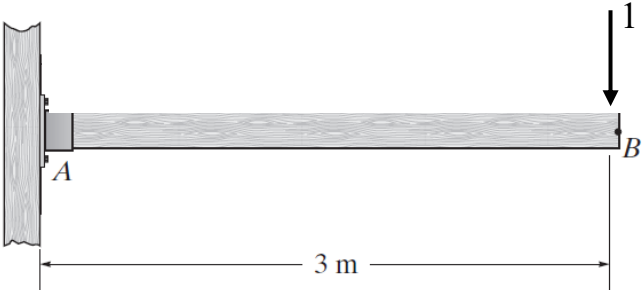
Example 8b-4: Determine the slope and displacement at point B. EI is constant.

Real loads



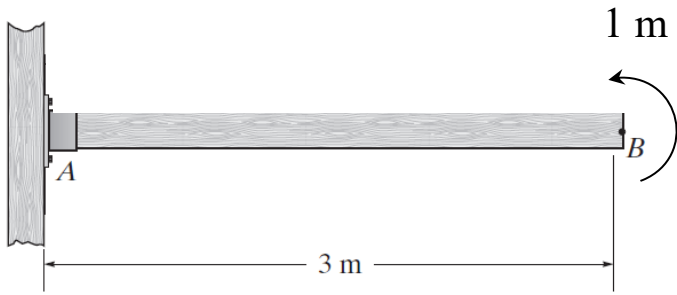
Example 8b-4: Determine the slope and displacement at point B. EI is constant.

Virtual load



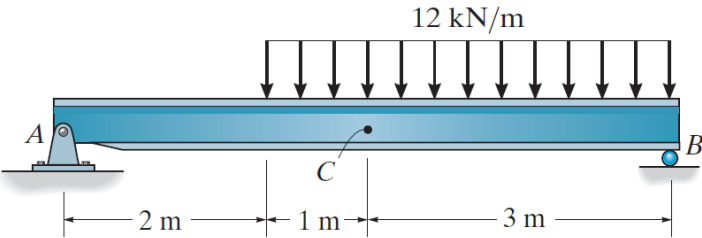
Example 8b-4: Determine the slope and displacement at point B. EI is constant.

Virtual moment



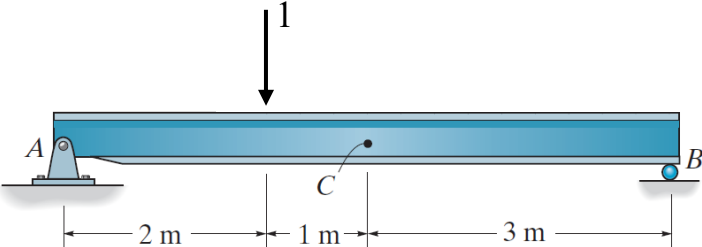
Problem 8b-5. Determine the displacement at $x = 2$ m. Use the principle of virtual work. EI is constant.

Real loads



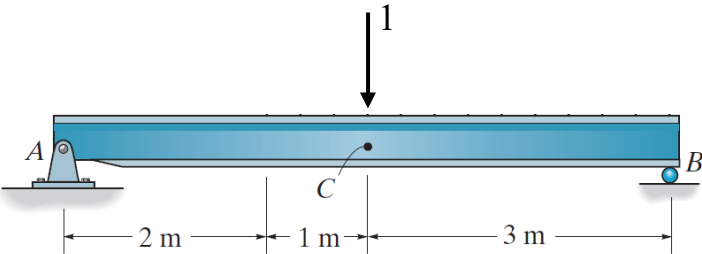
Problem 8b-5. Determine the displacement at $x = 2$ m. Use the principle of virtual work. EI is constant.

Virtual load



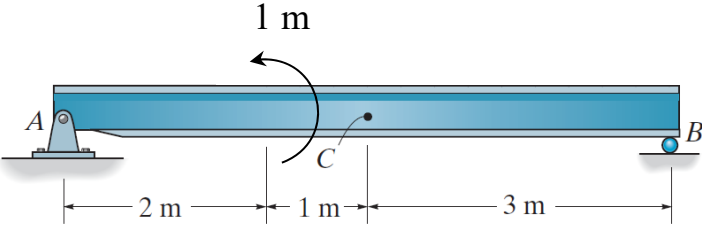
Problem 8b-5. Determine the displacement at $x = 3$ m. Use the principle of virtual work. EI is constant.

Virtual load



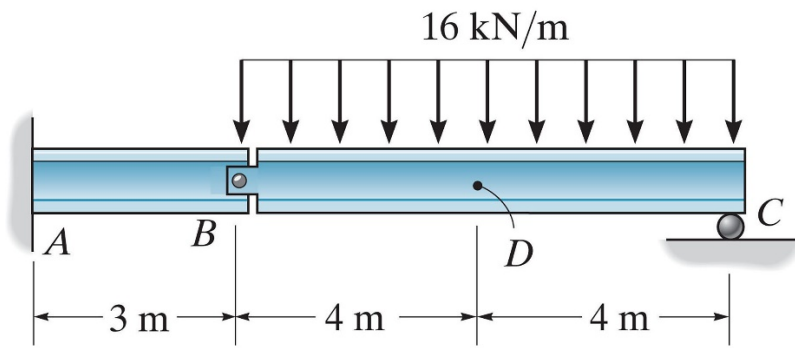
Problem 8b-5. Determine the displacement at $x = 2$ m. Use the principle of virtual work. EI is constant.

Virtual moment



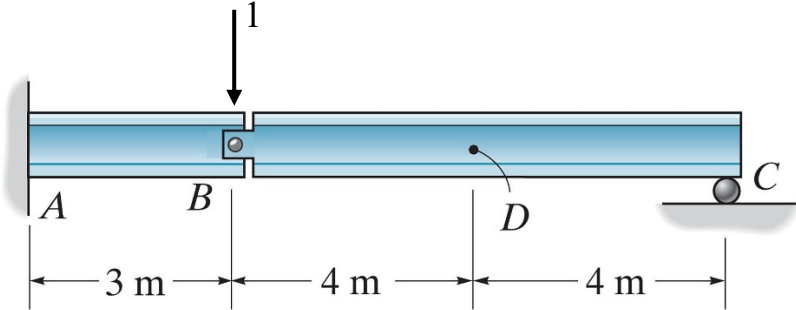
Problem 8b-6. Determine the displacement at B . Use the principle of virtual work. EI is constant.

Real loads



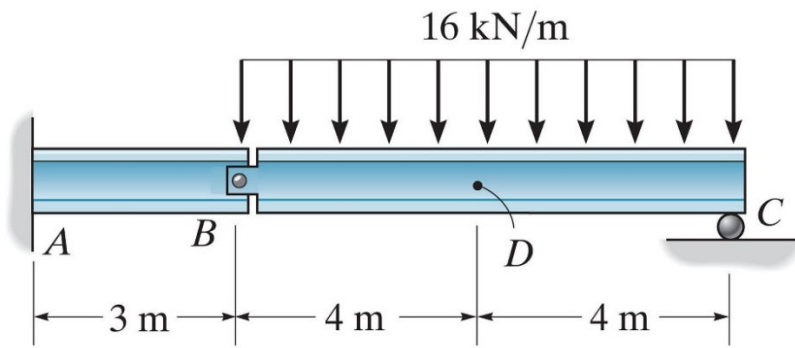
Problem 8b-6. Determine the displacement at *B*. Use the principle of virtual work. *EI* is constant.

Virtual load



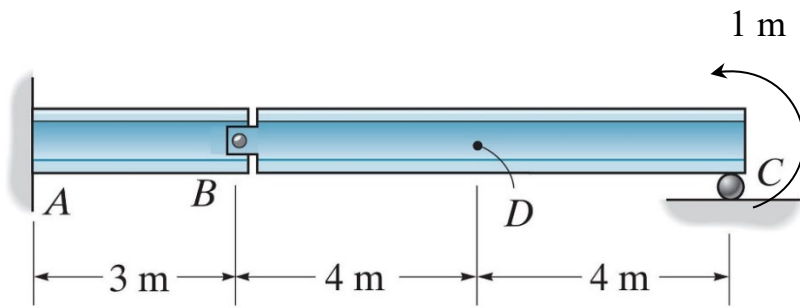
Problem 8b-7. Determine the slope at C . Use the principle of virtual work. EI is constant.

Real loads



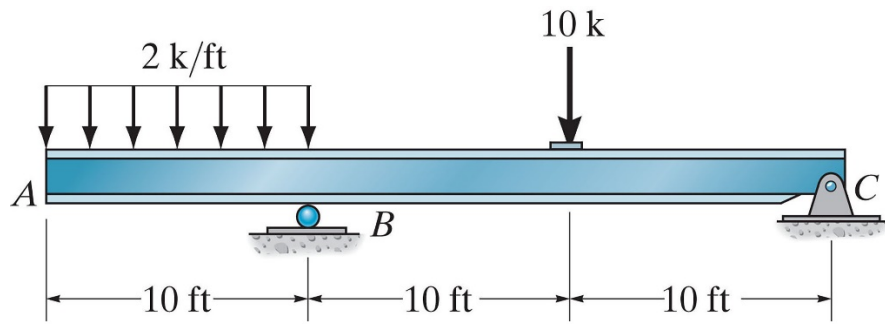
Problem 8b-7. Determine the slope at C . Use the principle of virtual work. EI is constant.

Virtual moment



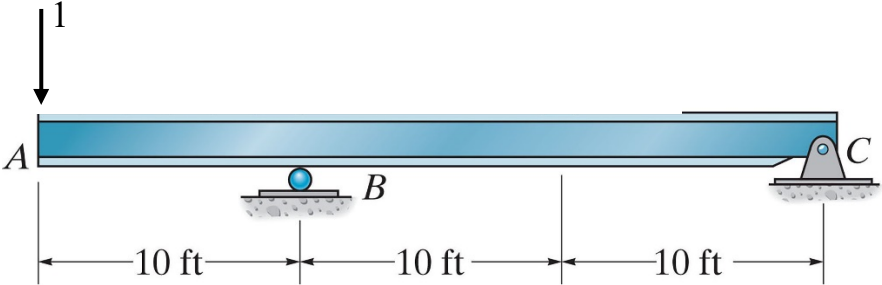
Problem 8b-8. Determine the displacement at A. Use the principle of virtual work. Assume $I = 170 \text{ in}^4$, and $E = 29(10^3) \text{ ksi}$.

Real loads



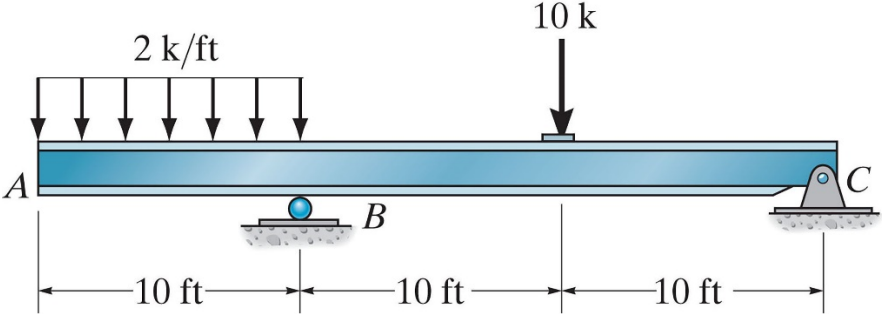
Problem 8b-8. Determine the displacement at A. Use the principle of virtual work. Assume $I = 170 \text{ in}^4$, and $E = 29(10^3) \text{ ksi}$.

Virtual load



Problem 8b-9. Determine the slope at *B*. Use the principle of virtual work. Assume $I = 170 \text{ in}^4$, and $E = 29(10^3) \text{ ksi}$.

Real loads



Problem 8b-9. Determine the slope at B . Use the principle of virtual work. Assume $I = 170 \text{ in}^4$, and $E = 29(10^3) \text{ ksi}$.

Virtual moment

