



## **SoulShift - Educational Q&A Platform**

### **General Questions**

Practice Questions



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**Q1. For a cantilever beam with a point load at the free end, what is the deflection at the free end?**

- A.  $WL^3/(3EI)$
- B.  $WL^3/(12EI)$
- C.  $WL^2/(2EI)$
- D.  $WL^4/(8EI)$

*Solution: The deflection ( $\delta$ ) at the free end of a cantilever beam with a point load ( $W$ ) at the end is given by  $\delta = WL^3/(3EI)$ , where  $E$  is the modulus of elasticity and  $I$  is the moment of inertia.*

**Q2. In a simply supported beam, what is the location of the maximum shear force?**

- A. At the center
- B. At the supports
- C. At one-third points
- D. Uniformly distributed

*Solution: The maximum shear force in a simply supported beam occurs at the supports.*



