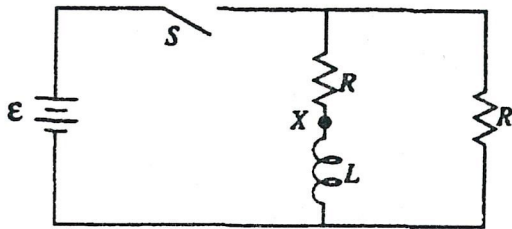


Questions 59-61 relate to the following circuit in which the switch S has been open for a long time.



59. What is the instantaneous current at point X immediately after the switch is closed?

- (A) 0
- (B) $\frac{\mathcal{E}}{R}$
- (C) $\frac{\mathcal{E}}{2R}$
- (D) $\frac{\mathcal{E}}{RL}$
- (E) $\frac{\mathcal{E}L}{2R}$

60. When the switch has been closed for a long time, what is the energy stored in the inductor?

- (A) $\frac{L\mathcal{E}}{2R}$
- (B) $\frac{L\mathcal{E}^2}{2R^2}$
- (C) $\frac{L\mathcal{E}^2}{4R^2}$
- (D) $\frac{LR^2}{2\mathcal{E}^2}$
- (E) $\frac{\mathcal{E}^2R^2}{4L}$

61. After the switch has been closed for a long time, it is opened at time $t = 0$. Which of the following graphs best represents the subsequent current i at point X as a function of time t ?

