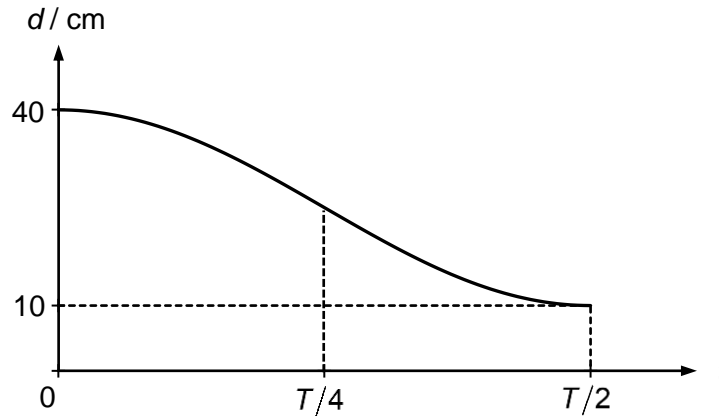


- 17 A mass is attached to a spring that is suspended from a ceiling. The mass is displaced vertically downwards from its equilibrium position and released such that it performs simple harmonic motion with period  $T$ .

The graph shows the variation with time  $t$  of the vertical distance  $d$  of the mass from the ceiling.



Which of the following statements is not correct?

- A The speed is maximum at  $T/4$ .
- B The amplitude of oscillation is 30 cm.
- C The restoring force on the mass is zero at  $d = 25$  cm.
- D The magnitude of the acceleration of the mass increases from  $T/4$  to  $T/2$ .