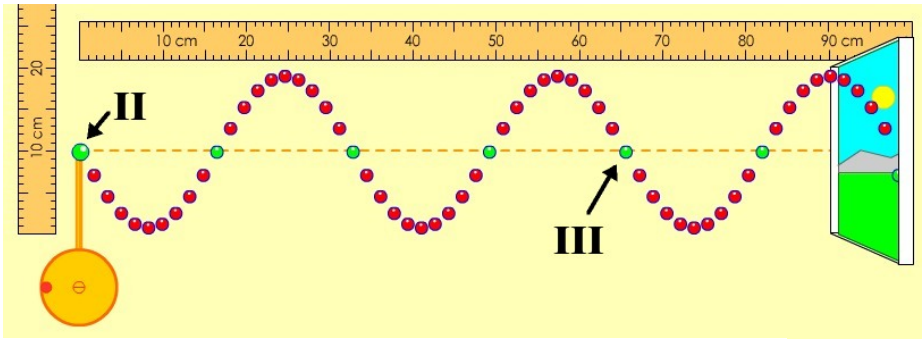
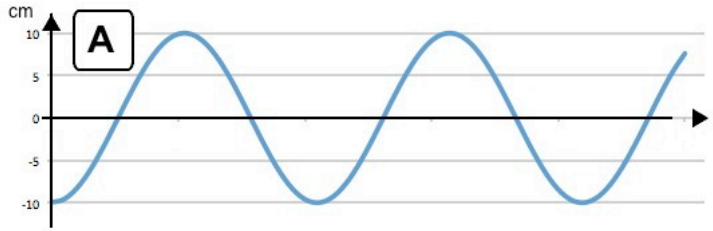
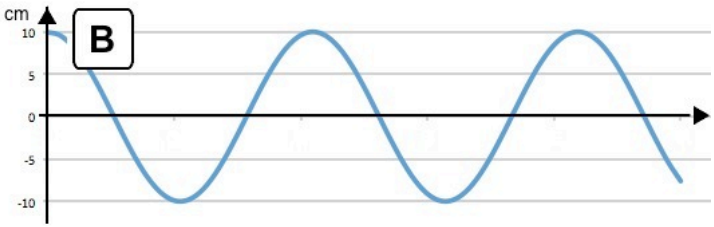
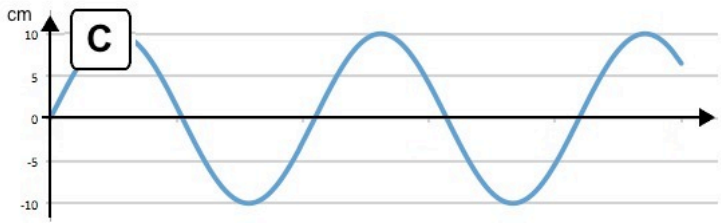
An elastic string (modeled as a series of beads) driven by a wheel driving one of the beads up and down sinusoidally. . The driving wheel has generated a traveling wave of amplitude 10 cm moving to the right. (The string continues on for a long way to the right as indicated by its going "out the window.") The figure shows $t = 0$, when the green bead marked "II" is passing through its equilibrium point.

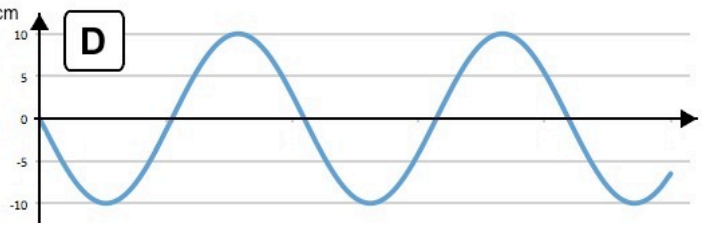
Which of the graphs could serve as the graph of **the vertical displacement of bead II** as a function of **time**?





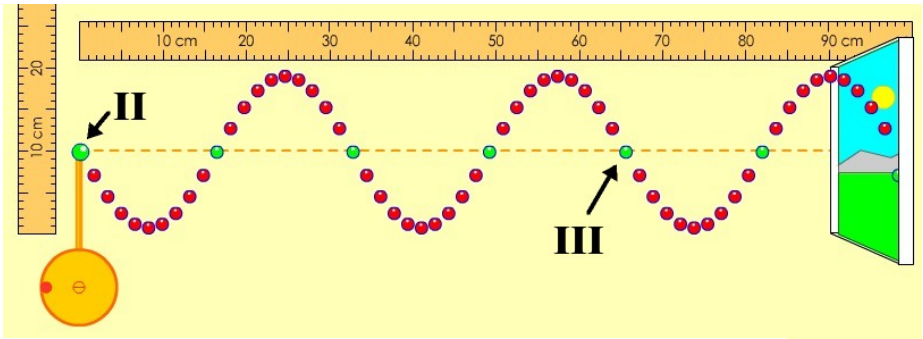


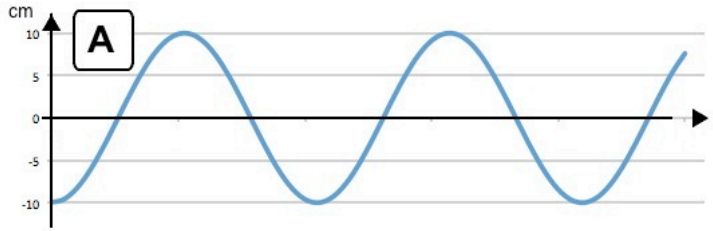


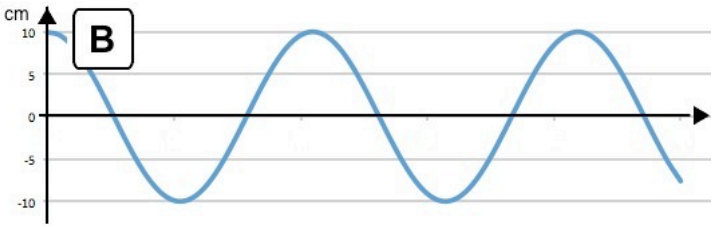


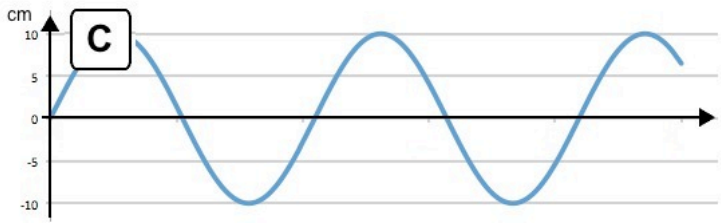
An elastic string (modeled as a series of beads) driven by a wheel driving one of the beads up and down sinusoidally. . The driving wheel has generated a traveling wave of amplitude 10 cm moving to the right. (The string continues on for a long way to the right as indicated by its going "out the window.") The figure shows $t = 0$, when the green bead marked "II" is passing through its equilibrium point.

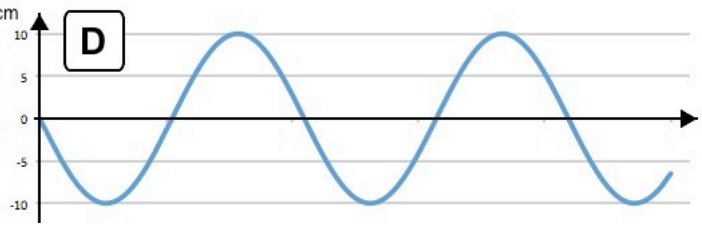
Which of the graphs could serve as a graph of **the vertical displacement of bead III** as a function of **time**?











An elastic string (modeled as a series of beads) driven by a wheel driving one of the beads up and down sinusoidally. . The driving wheel has generated a traveling wave of amplitude 10 cm moving to the right. (The string continues on for a long way to the right as indicated by its going "out the window.") The figure shows $t = 0$, when the green bead marked "II" is passing through its equilibrium point.

Which of the graphs could serve as a graph of **the vertical displacement of the elastic string at the time $t = 0$** as a function of **position**?