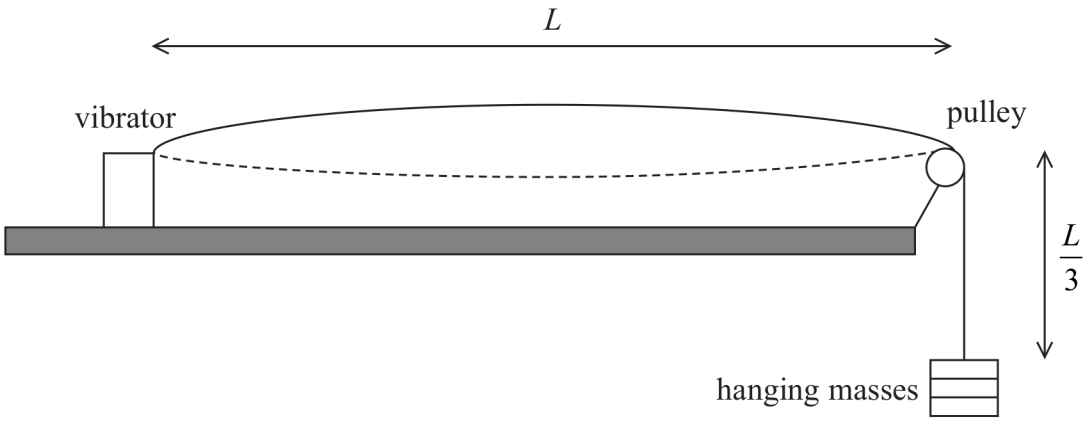
6 The speed of waves on a vibrating string is investigated using the apparatus shown.



length of string between vibrator and pulley = L

length of string between pulley and hanging masses = $\frac{L}{3}$

mass of whole string = m
mass of hanging masses = M

Which of the following expressions represents the speed of the waves on the string?

☒ **A** $\sqrt{\left(\frac{4MgL}{3m}\right)}$

☒ **B** $\sqrt{\left(\frac{2MgL}{3m}\right)}$

☒ **C** $\sqrt{\left(\frac{MgL}{m}\right)}$

☒ **D** $\sqrt{\left(\frac{MgL}{3m}\right)}$

(Total for Question 6 = 1 mark)

DO NOT WRITE IN THIS AREA
DO NOT WRITE IN THIS AREA