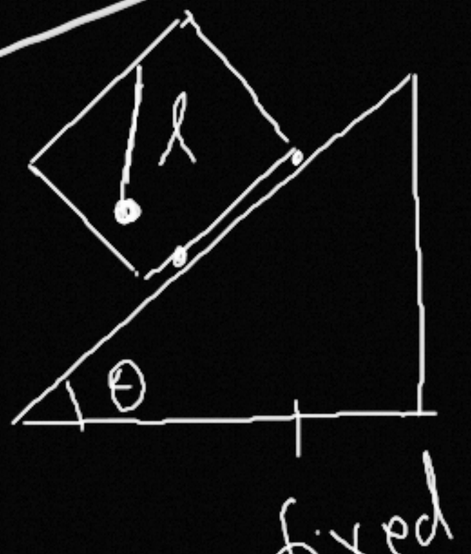
SHORT- TRICK



Pendulum oscillates inside a box sliding down the fixed inclined plane.
Time Period of oscillation.

(a) $2\pi\sqrt{\frac{l}{g}}$ (b) $2\pi\sqrt{\frac{l\sin\theta}{g}}$ (c) $2\pi\sqrt{\frac{l}{g\sin\theta}}$ (d) $2\pi\sqrt{\frac{l}{g\cos\theta}}$

formal method is given in all the books for IIT/NEET Prep.

Look at the options carefully if box was on ground Then $T = 2\pi\sqrt{\frac{l}{g}}$. so if you put $\theta = 0$ in the options given, then whichever options becomes

$2\pi\sqrt{\frac{l}{g}}$ will be the correct answer.

option "A" is outrightly wrong. Hence for $\theta = 0$ only "D" option becomes $2\pi\sqrt{\frac{l}{g}}$. So "D" is the correct option.

P.S. check any book for formal solution.