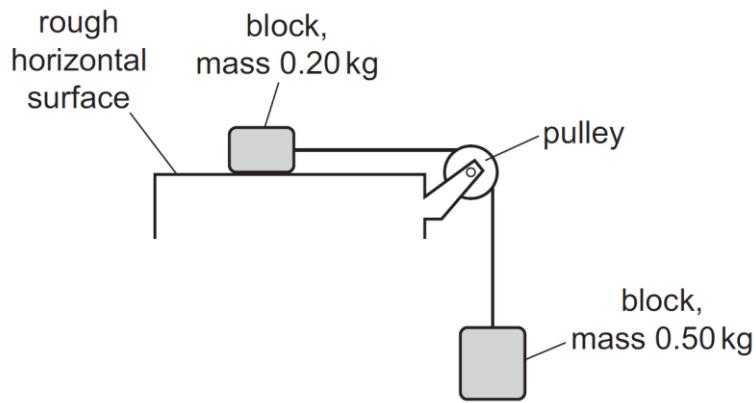


- 4 Two blocks, of mass 0.20 kg and 0.50 kg, are connected by a light inextensible string that passes over a frictionless pulley.



The blocks are initially held stationary. The block of mass 0.20 kg rests on a rough horizontal surface.

The block of mass 0.50 kg is suspended in air. Air resistance is negligible.

When the blocks are released, the kinetic frictional force between the block of mass 0.20 kg and the rough surface is 3.5 N.

What is the magnitude of the acceleration of the masses?

- A  $2.0 \text{ m s}^{-2}$
- B  $2.8 \text{ m s}^{-2}$
- C  $3.9 \text{ m s}^{-2}$
- D  $7.0 \text{ m s}^{-2}$