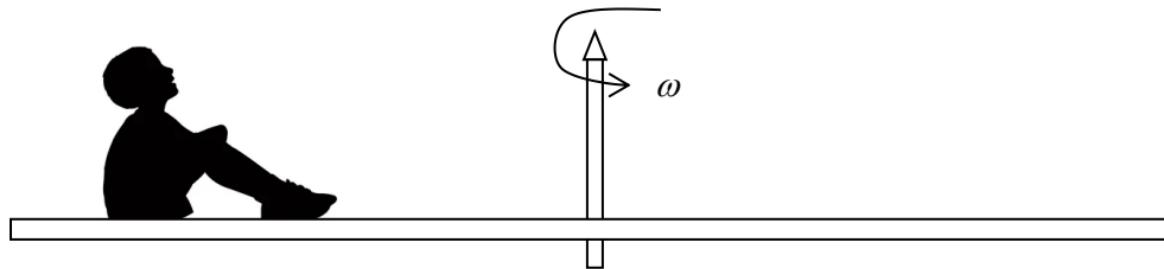


- 10 The diagram shows a child sitting on a merry-go-round, which is turning with constant angular velocity ω .



Which statement correctly states and explains the direction of friction acting on the child in the position shown?

- A Rightwards, to provide for centripetal force.
- B Rightwards, to counter centripetal force.
- C Leftwards, to provide for centripetal force
- D Leftwards, to counter centripetal force.

- 11 A compass is tilted horizontally so that its north-south axis is at an angle of 30° to the vertical. If the Earth's magnetic field is horizontal and points due north, what is the angle between the compass needle and the vertical?