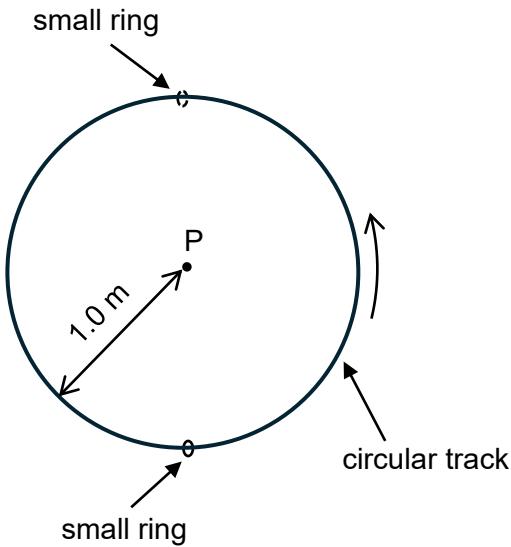


**6**

A small ring, of mass  $m$ , moves along a smooth circular track in the vertical plane, as shown in the figure below. P is the centre of the circular track.



The radius of the track is 1.0 m.

At the bottom of the track, an upward normal force of magnitude  $5.5mg$  acts on the small ring.

Which row correctly describes the magnitude and direction of the normal force acting on the small ring when it is at the top of the track?

magnitude

direction

---

**A**

$0.5mg$

upwards

---

**B**

$0.5mg$

downwards

**C**

$1.5mg$

upwards

**D**

$1.5mg$

downwards