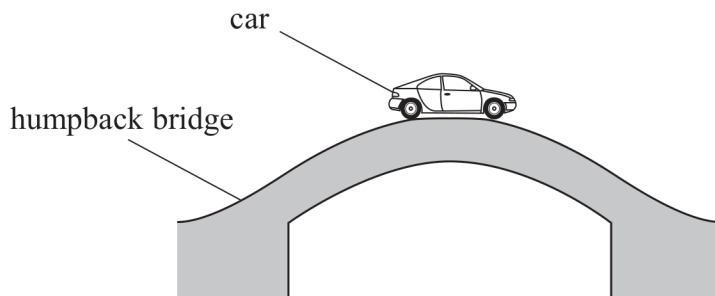


- 10 A car travels over a humpback bridge, as shown. The bridge forms part of a circle of radius  $r$ . The car has mass  $m$  and travels with constant speed  $v$ .



The car is at the top of the bridge.

Which of the following expressions gives the force, from the bridge, on the moving car?

- ☒ A  $mg$
- ☒ B  $mg + \frac{mv^2}{r}$
- ☒ C  $mg - \frac{mv^2}{r}$
- ☒ D  $\frac{mv^2}{r} - mg$

(Total for Question 10 = 1 mark)