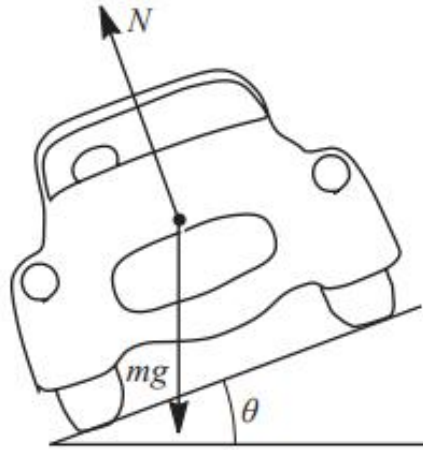


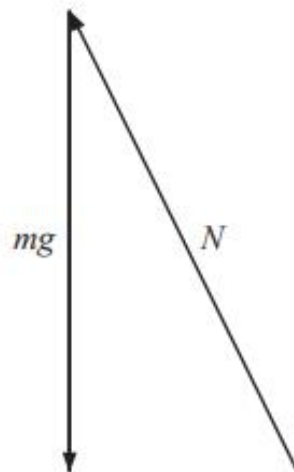
Question 2

(4 marks)



The free body diagram above shows a car going clockwise around a corner on a banked track without relying on friction.

- (a) Complete the vector diagram, showing how these two forces result in a centripetal force. Indicate where the angle θ is on your diagram. (2 marks)



- (b) With reference to your diagram in part (a), describe why increasing the angle of the track allows the cars to go around the same radius curve at a greater speed. (2 marks)
