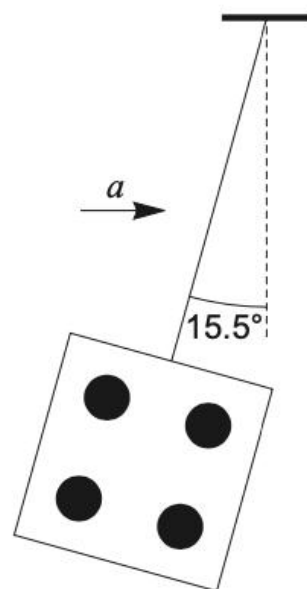


**Question 3****(4 marks)**

A 370 g single fluffy die on a string is hanging from a baby carriage travelling on a Melbourne tram. The tram accelerates away from the tram stop. At the point of acceleration, the angle between the string and the vertical is  $15.5^\circ$ . Calculate the magnitude of the acceleration of the tram.



Answer: \_\_\_\_\_  $\text{m s}^{-2}$