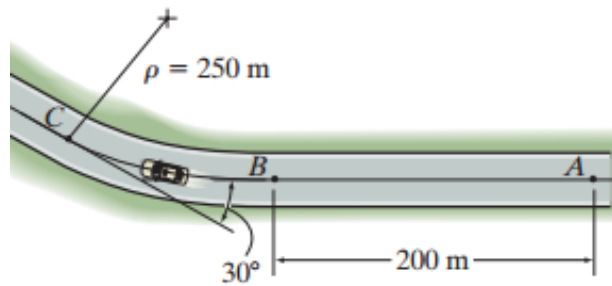


3) **ABET SO (a)**: When the car reaches point  $A$ , it has a speed of  $25 \text{ m/s}$ . If the brakes are applied at  $A$ , its speed is reduced by  $a_t = (0.001s - 1) \text{ m/s}^2$ . Determine the magnitude of acceleration of the car just before it reaches point  $C$ .

Clearly label your coordinate system(s).



30 marks