

Question #77493, Physics / Other

A race car moves along a circular track at a tangential speed of 35.0 m/s. If the car's centripetal acceleration is 18.5 m/s², what is the distance between the car and the center of the track?

Solution

$$a = \frac{v^2}{r} \Leftrightarrow r = \frac{v^2}{a};$$

$$r = \frac{35.0^2}{18.5} = 66.2 \text{ m}$$

Answer: 66.2 m.

Answer provided by <https://www.AssignmentExpert.com>