

P3.8-2) A truck starts from rest on a road with a constant radius of curvature ($\rho = 50$ m). The truck increases its speed at a constant rate until it reaches 10 m/s after 5 seconds. Determine the total acceleration of the truck 4 seconds after it starts increasing its speed.

Given:

Find:

Solution:

Determine the car's tangential acceleration.

$$a_t = \dot{v} = \underline{\hspace{2cm}}$$

What is the truck's speed at 4 seconds?

$$v_{t=4} = \underline{\hspace{2cm}}$$

What is the truck's total acceleration?

$$\mathbf{a} = \underline{\hspace{2cm}}$$