Answer on Question #42814, Physics, Mechanics

A buss tire rotates at an initial angular speed of 20.5 rad/s. The driver accelerates, and after 4.5 s the tires angular speed is 29.0 rad/s. What is the tires average angular acceleration during the 4.5 s time interval?

Solution

The change of speed is

$$29 - 20.5 = 8.5 rad/s$$

Then acceleration is

$$n = \frac{8.5}{4.5} \approx 1.89 rad/s^2$$