

1. A wheel starts from rest and reaches an angular speed of 6.0 rad/s while turning through 3.0 revolutions. What is the average angular acceleration of the wheel?

2. A wheel starts at rest, and has an angular acceleration of 2 rad/s^2 . Through what angle does it turn in 6.0 s?

3. Through how many radians does a 0.300-m radius automobile tire rotate after starting from rest and accelerating at a constant angular acceleration of 1.50 rad/s^2 over a 5.00 s interval?

4. A wheel accelerates with a constant angular acceleration of 5.5 rad/s^2 . If the initial angular velocity is 2.0 rad/s , what is the angular velocity at $t = 3.0 \text{ s}$?
