# Angular and Linear Speed

Angular Speed:

$\omega = \theta / t$

1. A wheel completes 120 revolutions in 2 minutes. What is its angular speed in radians per second?

2.A fan blade rotates at 900 revolutions per minute (rpm). What is its angular speed in radians per second?

3. A car tire with a radius of 0.3 meters is rolling without slipping at a linear speed of 18 m/s. What is the angular speed of the tire?

Linear Speed: $v = \frac{d}{t}$

1.A cyclist travels 120 meters in 20 seconds. What is the cyclist's linear speed?

2. A wheel with a radius of 0.5 meters is spinning at an angular speed of $\omega = 8$ rad/s. What is the linear speed of a point on the edge of the wheel?

3. A Ferris wheel with a radius of 10 meters makes one complete revolution every 20 seconds. What is the linear speed of a seat on the edge?