

Rotational Kinematics 1

Angular Position

MPI Physics 240 (C Section)
and 210 (A&D Section)

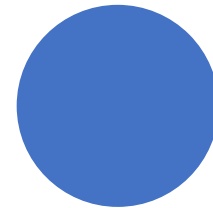
Dr. Clothier

Independence MO School
District

- This video discusses rotation, angles, radians, and angular position:

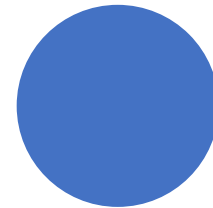
<https://youtu.be/-PJj1GRg9Wc>

Video: Rotational Kinematics 1



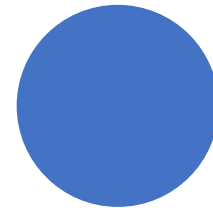
- This video shows three examples of converting between degrees, radian, rotations, and arc length:
- <https://youtu.be/cfJsaOHTWlw>

Video: Rotational Kinematics 1 -- Examples



1. Convert 100 degrees into radians.
2. Convert 2.5 rotations into radians.
3. A tire of radius 0.300 m on a car rotates 15.0 times. How many meters does the car move?

Typed Examples from the
Video



Homework

1. A drill bit rotates 274 radians. How many rotations does it make ?
 2. A basketball is shot at a 52.2 degree angle. Convert the angle to radians.
 3. How many radians must a wheel of radius 0.250 m turn to cover 15.0 meters of distance?
- Try to solve the problem yourself, then watch the solution video here:
 - <https://youtu.be/Me9oMhOOunY>
 - That's it!