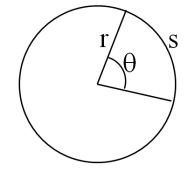
**Noteguide for Basic Quantities and Conversions (Videos 8ABC) Name**

**8A:**

Radians:



360o = 2π radians = full circle

**(Do 1-5 on the Worksheet)**

Angular Quantities:

|  |  |
| --- | --- |
| Linear:  s  v  a | Angular:  θ  ω    α |

**8B:**

Conversions: (Let's use revolution as a synonym for rotation in this unit)

|  |  |
| --- | --- |
| Radians  Revolutions  Rad/s  Rad/s  Rev/min (RPM) | = rev x (2π)  = rad ÷ (2π)  = RPM x (2π) ÷ (60)  = (rev/s) x (2π)  = (rad/s) x (60) ÷ ( 2π) |

**(Do 6-13 on the Worksheet)**

**8C:**

Tangential relationships:

|  |  |
| --- | --- |
| Linear:  (m) s  (m/s) v  (m/s/s) a | Tangential: (at the edge of the wheel)  = θr - Displacement\*  = ωr - Velocity  = αr - Acceleration\*  \* not in data packet |

**(Do 14-23 on the Worksheet) -** For 20-23, convert the angular quantity to radians, rad/s or rad/s/s, and then apply the tangential relationship.