

A. Bohr's Allowed Orbits

$$r p = \frac{n h}{2\pi}$$

& De Broglie's particle wavelength

$$p = h/\lambda$$

COMBINE to IDENTIFY Allowed ORBITS as standing waves on the circumference:

$$(2\pi r) \cdot \frac{h}{\lambda} = n h = 1, 2, \dots$$

i.e. EXACTLY an integer no. of λ 's fits into the circumference, $(2\pi r)$, of an allowed orbit!