

L – me say L !

Words by Walter F. Smith 2003

Tune: Banana Boat song (traditional)

$$\vec{L} = \vec{r} \times \vec{p} \Rightarrow L = r p \sin \theta \quad L = I \omega \quad L = r p \sin \theta \quad \vec{\tau} = \frac{d\vec{L}}{dt}$$

Note: verses 3 and 5 (marked ) are sung using the

**“Beautiful bunch of ripe bananas” version of the tune.
(A dash after a syllable indicates that it’s sung over two notes.)**

(Start out slowly.)

1. L – me say L-- / Angular momentum equals r cross- p- !

L – vector cap L

(Slow down even more for this next line)

Magnitude of I omega, don’t you see.

(Speed up gradually)

2. Come, let us calculate angular momentum!

Angular momentum equals r cross- p- !

r from the center gets crossed into momentum!

Magnitude of I omega, don’t you see.



3. Spin all night, and spin all day! / Angular momentum equals r cross- p- !

L is conserved, it won’t fade away! / Magnitude of I omega, don’t you see.

4. L is a vector, & it points along the axis. / Angular momentum equals r cross- p- !

r p sin theta never wanes and never waxes! / Magnitude of I omega, don’t you see.



5. Torque external can change the L! / Angular momentum equals r cross- p- !

tau is d-L d-t, now ain’t that swell! / Magnitude of I omega, don’t you see.

6. L – me say capital L / Angular momentum equals r cross- p- !

L – me say vector cap L / Magnitude of I omega, don’t you see.