FORMULE NOTE

martedì 14 maggio 2024 10:16

$$\sin\left(\frac{\pi}{2}-\alpha\right)=\cos(\alpha);\quad \cos\left(\frac{\pi}{2}-\alpha\right)=\sin(\alpha)$$

$$\sin\left(\frac{\pi}{2}+\alpha\right)=\cos(\alpha);\quad \cos\left(\frac{\pi}{2}+\alpha\right)=-\sin(\alpha)$$

$$\sin\left(\pi-\alpha\right)=\sin(\alpha);\quad \cos\left(\pi-\alpha\right)=-\cos(\alpha)$$

$$\sin\left(\pi+\alpha\right)=-\sin(\alpha);\quad \cos\left(\pi+\alpha\right)=-\cos(\alpha)$$

$$\sin\left(\frac{3}{2}\pi-\alpha\right)=-\cos(\alpha);\quad \cos\left(\frac{3}{2}\pi-\alpha\right)=-\sin(\alpha)$$

$$\sin\left(\frac{3}{2}\pi+\alpha\right)=-\cos(\alpha);\quad \cos\left(\frac{3}{2}\pi+\alpha\right)=\sin(\alpha)$$

$$\sin(-\alpha)=-\sin(\alpha);\quad \cos(-\alpha)=\cos(\alpha)$$

$$\sin(\alpha+\beta)=\sin(\alpha)\cos(\beta)+\cos(\alpha)\sin(\beta)$$

$$\sin(\alpha-\beta)=\sin(\alpha)\cos(\beta)-\cos(\alpha)\sin(\beta)$$

$$\cos(\alpha+\beta)=\cos(\alpha)\cos(\beta)-\sin(\alpha)\sin(\beta)$$

$$\cos(\alpha-\beta)=\cos(\alpha)\cos(\beta)+\sin(\alpha)\sin(\beta)$$

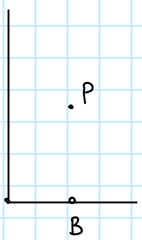
ARCO (angolo)	sen	cos	tan	cosec	sec	cotan
0 (0°)	0	1	0	∞	1	∞
$\frac{\pi}{6}$ (30°)	$\frac{1}{2}$	$\frac{\sqrt{3}}{2}$	$\frac{\sqrt{3}}{3}$	2	$\frac{2}{3}\sqrt{3}$	$\sqrt{3}$
$\frac{\pi}{4}$ (45°)	$\frac{\sqrt{2}}{2}$	$\frac{\sqrt{2}}{2}$	1	$\sqrt{2}$	$\sqrt{2}$	1
$\frac{\pi}{3}$ (60°)	$\frac{\sqrt{3}}{2}$	$\frac{1}{2}$	$\sqrt{3}$	$\frac{2}{3}\sqrt{3}$	2	$\frac{\sqrt{3}}{3}$
$\frac{\pi}{2}$ (90°)	1	0	∞	1	∞	0
$\frac{2}{3}\pi$ (120°)	$\frac{\sqrt{3}}{2}$	$-\frac{1}{2}$	$-\sqrt{3}$	$\frac{2}{3}\sqrt{3}$	-2	$-\frac{\sqrt{3}}{3}$
$\frac{3}{4}\pi$ (135°)	$\frac{\sqrt{2}}{2}$	$-\frac{\sqrt{2}}{2}$	-1	$\sqrt{2}$	$-\sqrt{2}$	-1
$\frac{5}{6}\pi$ (150°)	$\frac{1}{2}$	$-\frac{\sqrt{3}}{2}$	$-\frac{\sqrt{3}}{3}$	2	$-\frac{2}{3}\sqrt{3}$	$-\sqrt{3}$
π (180°)	0	-1	0	∞	-1	∞
$\frac{7}{6}\pi$ (210°)	$-\frac{1}{2}$	$-\frac{\sqrt{3}}{2}$	$\frac{\sqrt{3}}{3}$	-2	$-\frac{2}{3}\sqrt{3}$	$\sqrt{3}$
$\frac{5}{4}\pi$ (225°)	$-\frac{\sqrt{2}}{2}$	$-\frac{\sqrt{2}}{2}$	1	$-\sqrt{2}$	$-\sqrt{2}$	1
$\frac{4}{3}\pi$ (240°)	$-\frac{\sqrt{3}}{2}$	$-\frac{1}{2}$	$\sqrt{3}$	$-\frac{2}{3}\sqrt{3}$	-2	$\frac{\sqrt{3}}{3}$

f. en cinetica

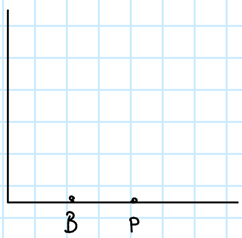
$$\boxed{T = \frac{1}{2} m |v_B|^2 + \frac{1}{2} \omega \cdot I_B \omega}$$

$$\boxed{T = \frac{1}{2} m \, |v_{O'}|^2 + m \omega \cdot ((B - O') \times v_{O'}) + \frac{1}{2} \omega \, I_{O'} \, \omega}$$

Ricorda



qui $I_{2,P} = I_{2,B}$



qui $I_{1,B} = I_{1,P}$