

BIRROTATION

$$e^{i\omega} + e^{-i\omega} = 2 \cos \omega$$

Question:

The cosine should be of an angle ■, ■, ■, not of an angular velocity ■

In that case we should divide by t to obtain a velocity

$$\frac{e^{i\varphi}}{t} + \frac{e^{-i\varphi}}{t} = \frac{2 \cos \varphi}{t}$$

$$(s/t)^2 = (s/t) + (s/t)$$

$$v^2(\text{TR}) = 1 + v(\text{SR})$$

$$v = \Phi$$

$$\Phi = \left(\frac{1+\sqrt{5}}{2} \right) = 1.618$$

$$v^2 = 1 + v, \text{ Solution is: } \frac{1}{2}\sqrt{5} + \frac{1}{2}, \frac{1}{2} - \frac{1}{2}\sqrt{5} = 1.618, -0.61803 = \Phi, 1 - \Phi$$