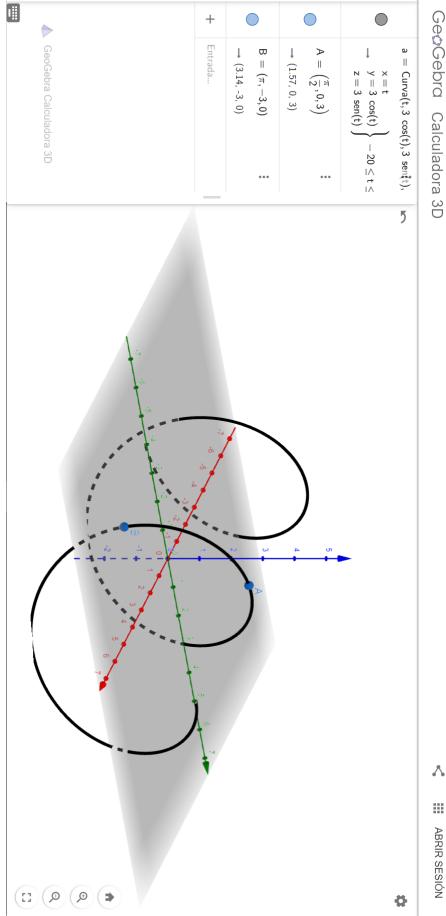
I Calcular longitud de la circa =(t)=(t, 3cost, 3sint) enpezado en $A(\frac{\pi}{2},0,3)$ hasla $B(\pi,-3,0)$ vearos qe t va de z a T entos te[z, T] ahora calculens la longitur L= 5 1174111 dt bearos ques es Fi(t) 7'(t) = (1, -3sn(t), 3cos(t))x(t)=t x'(t)=1 $y(t) = 3\cos(t)$ $y'(t) = -3\sin(t)$ z(t) = 3 sin(t) z'(t) = 3 cos(t) $\|\vec{c}'(t)\| = \int_{1}^{2} + 9\sin^{2}(t) + 9\cos^{2}(t)$ = 12 + 9 (six(t)+cos2(t)) por identidad tissu $= \sqrt{1^2 + 9(1)}$ = 11+9 = 110 entons abora longitudes L = 100 dt

$$\int \sqrt{10} \, dt = \sqrt{10} \int dt = \sqrt{10} \, dt$$

$$\frac{\pi}{2}$$

$$=\sqrt{10}\left[\widetilde{1}^{\prime}-\frac{\overline{1}^{\prime}}{2}\right]=\sqrt{10}\left[\frac{\overline{1}^{\prime}}{2}\right]$$

$$=\frac{\pi}{2}\sqrt{10} \simeq 4.967$$



ABRIR SESIÓN