Question 1.2

Tuesday, April 21, 2020 6:00 PM

Given: $\delta\theta_1 = 0$, $\delta z_0 = 0$

$$\delta z_1 = A_0 \delta z_0 + B_0 \delta\theta_0$$

$$\delta\hat{x} = \delta z_2 = B_1 \delta\theta_1 + A_1 \delta z_1$$

$$= B_1 \delta\theta_1 + A_1 (A_0 \delta z_0 + B_0 \delta\theta_0)$$

$$= B_1 \delta\theta_1 + A_1 B_0 \delta\theta_0 + A_1 A_0 \delta z_0$$

($B_1 \delta\theta_1 = 0$, $A_1 A_0 \delta z_0 = 0$)

$$\Rightarrow \delta\hat{x} = A_1 B_0 \delta\theta_0$$