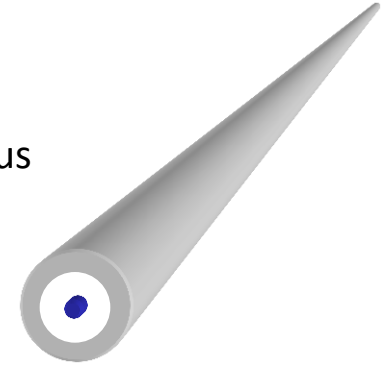


Infinite Cylinders



A long thin wire has a uniform positive charge density of 2.5 C/m . Concentric with the wire is a long thick conducting cylinder, with inner radius 3 cm , and outer radius 5 cm . The conducting cylinder has a net linear charge density of -4 C/m .



What is the linear charge density of the induced charge on the inner surface of the conducting cylinder (λ_i) and on the outer surface (λ_o)?

λ_i :	+2.5 C/m	-4 C/m	0	-2.5 C/m	-2.5 C/m
λ_o :	-6.5 C/m	0	-4 C/m	+2.5 C/m	-1.5 C/m
	A	B	C	D	E

