Answer on Question#38626 - Economics - Economics of Enterprise

P=50-Q/100.

Express Q from the previous formula via P
Q = 5000 - 100P
Q1 = 5000 - 12*100 = 3800, Q2 = 4000
Ed = ((P1 + P2)/(Q1 + Q2))*((Q2 - Q1)/(P2 - P1))
a. What is the are elasticity of demand as price decreases from $12 to $10?
Ed = (22/7800)*(200/-2) = -11/39, so the demand is inelastic.
b. What is the are elasticity of demand as price increases from $10 to $12?
Ed = (22/7800)*(-200/2) = -11/39, so the elasticity is the same and the demand is inelastic.