3. (a) The table below gives the quantity of good X demanded and supplied at various prices.

Price (dollars)	Quantity Demanded (units)	Quantity Supplied (units)
30	1	3
20	3	3
10	4	3

(i) Is the demand for good X relatively elastic, relatively inelastic, unit elastic, perfectly elastic, or perfectly inelastic when the price decreases from $30 to $20 ? Explain.

(ii) Is the supply of good X relatively elastic, relatively inelastic, unit elastic, perfectly elastic, or perfectly inelastic when the price decreases from $30 to $20 ? Explain.

(iii) If a per-unit tax is imposed on good X, how is the burden of the tax distributed between the buyers and sellers of good X?

(b) Assume that the income elasticity of demand for good Y is –2. Using a correctly labeled graph of the market for good Y, show the effect of a significant increase in income on the equilibrium price of good Y in the short run.

STOP

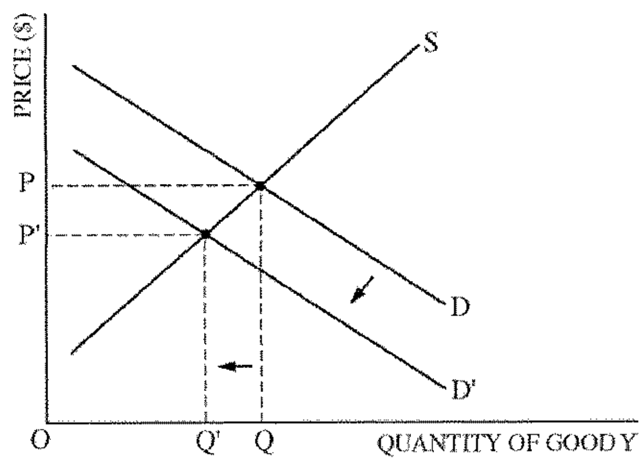
END OF EXAM

Question 3

5 points (3 + 2)

(a) 3 points:

- One point is earned for stating that the demand for good X is relatively elastic, because the elasticity coefficient > 1 OR because total revenue rises as price decreases from $30 to $20.
- One point is earned for stating that supply is perfectly inelastic, because there is no change in the quantity supplied as the price changes OR because the supply elasticity is zero.
- One point is earned for stating that all of the burden of a per-unit tax falls on sellers.



(b) 2 points:

- One point is earned for a correctly labeled graph of supply and demand.
- One point is earned for showing a leftward shift of the demand curve and a decrease in the equilibrium price.