$Q_x^d = 70 - 3P_x$ $Q_x^S = -10 + 5P_x$

To find equilibrium price and quantity

$70 - 3P_x = -10 + 5P_x$ $10 40

$80 - 3P = 5P$

$80 = 8P$

$10 = P$

$Q = 70 - 3(10) = 40$ or $Q = -10 + 5(10) = 40$

Price floor (set by government): Legal minimum price, meant to help sellers.

$Q_x^d = 70 - 3P_x$ $Q_x^S = -10 + 5P_x$

Suppose government imposes a price floor of $20

Quantity demanded: Q = 70 - 3(20) = 10 units

Quantity supplied: Q = -10 + 5(20) = 90 units

Surplus = 90 units - 10 units = 80 units (unsold)