UNIVERSITY OF WISCONSIN
Economics 101-Spring 2008
Professor Brown

Problem Set 7 Answers

1. a. With international trade, the price will be 140. To find domestic demand, plug this price into the demand curve: 140 = 250-2Q, Q = 55. Domestic supply: 140 = 50 + 3Q, Q = 30. Domestic demand is greater than domestic supply, so Relaxia will import 55-30 = 25 hammocks.
   b. With the tariff, the price will be 140 + 20 = 160. Domestic demand: 160 = 250-2Q, Q =45. Domestic supply 160 = 50+3Q, Q = 36.7
   Relaxia will import 45 – 36.7 = 8.3 hammocks.

2. b.
3. d.
4. c.
5. a.
6. c.
7. a. Set supply equal to demand: 100-Q = Q , Q = 50, P = 50.
   b. The cost to society is $5 above the cost to producers because of the negative externality. So the cost to society is reflected by the curve P = Q + 5. Set this equal to demand to get the optimal quantity: Q + 5 = 100-Q, Q = 47.5.
   c. It should impose a tax of $5 per unit on producers.
   d. The government could directly regulate the production of widgets by not allowing more than 47.5 widgets to be produced. Or it could issue permits for widget production.