**Assignment 1 – Solutions**

**5.4**

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**5.5**

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| --- | --- | --- | --- |
| (a) | Price | Quantity Demanded  (in Millions) | Quantity Supplied  (in Millions) |
|  | $.50 | 90 | 30 |
|  | $1.00 | 80 | 50 |
|  | $1.50 | 70 | 70 |
|  | $2.00 | 60 | 90 |
|  | $2.50 | 50 | 110 |

(b) Quantity demanded equals quantity supplied at *P* = $1.50, with quantity = 70 million dozen eggs.

(c)

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**5.7** (a)

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(b) *Qd* = *Qs*300 – 20 *P =* 20 *P –* 100  *P* = $10. Substitute *P* = $10 into either the demand or supply equation to get *Q* = 100.

(c) With *P* = $15, producers would want to supply 20  15 – 100 = 200 pizzas, but consumers would want to buy 300 – 20  15 = 0 pizzas. There would be an excess supply of pizzas, which would bring the price down. As the price decreased, quantity supplied would decrease while quantity demanded would increase until both were equal at a price of $10 and a quantity of 100.

(d) The new market demand for pizzas would be *Qd* = 600 – 40 *P*.

(e) *Qd* = *Qs*600 – 40 *P* = 20 *P –* 100700/60 = $11.67. Substitute  into either the demand or supply equation to get *Q* = 133.

**5.9** The equilibrium price is $50 and the equilibrium quantity is 12 keyboards. If the market price is $60, a surplus of (15 − 8) = 7 keyboards would occur. If the market price is $30, a shortage of (20 − 6) = 14 keyboards would occur.

