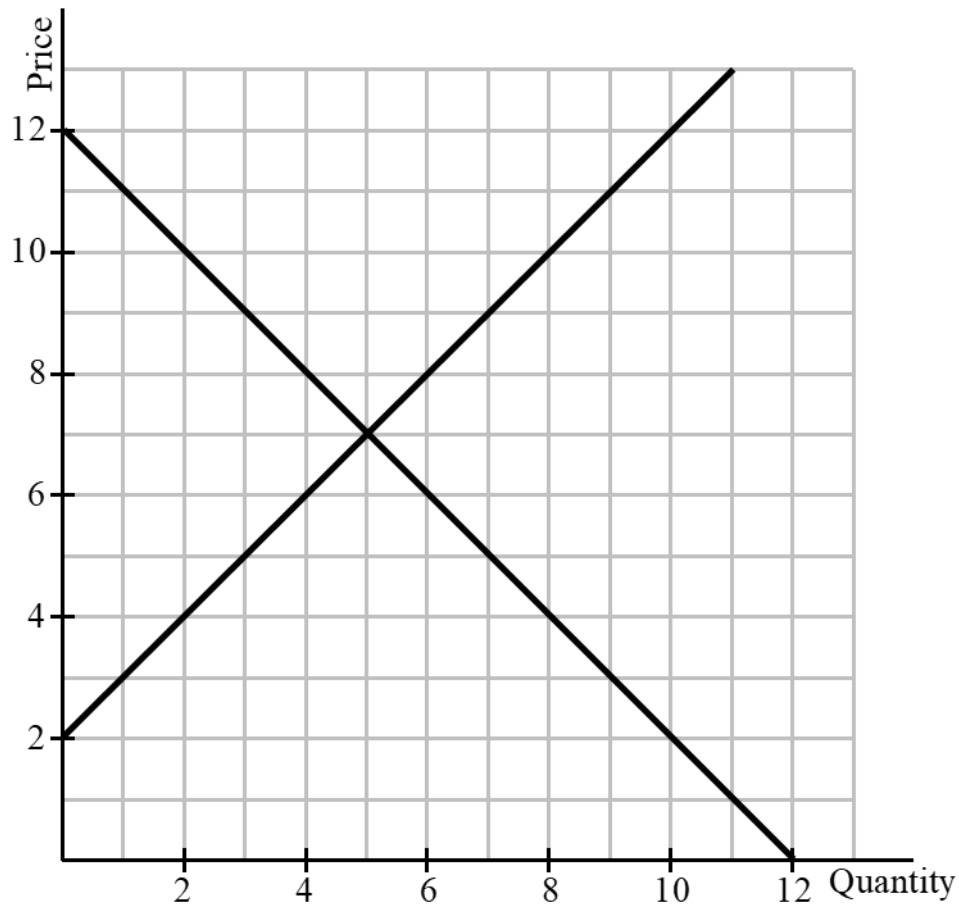# Problem Set 5: Welfare Analysis

For the following questions, please refer to the graph below:

1. At P=4, what is demand?
   a. Quantity Demanded = 8
   b. Demand: P =12-Q
   c. Demand: Q =12-P
   d. Both b. and c. are correct.

2. At P=4, what is quantity demanded?
   a. Quantity Demanded = 8
   b. Demand: P =12-Q
   c. Demand: Q =12-P
   d. Both b. and c. are correct

3. At P=4, what is supply?
    a. Quantity supplied = 2
    b. Supply: P =2+Q
    c. Supply: Q =-6+P
    d. Both b. and c. are correct.

4. At P=4, what is quantity supplied?
    a. Quantity supplied = 2
    b. Supply: P =2+Q
    c. Supply: Q =-2+P
    d. Both b. and c. are correct.

5. Assume the above market represents demand and supply for potatoes.
Holding everything else constant, what happens if the price for rice (a substitute of
potatoes) decreases?
    a.   Demand for rice increases
    b.   Demand for rice decreases
    c.   Quantity demanded for rice increases
    d.   Quantity demanded for rice decreases

6. Assume the above market represents demand and supply for potatoes.
Holding everything else constant, what happens if the price for rice (a substitute of
potatoes) decreases?
    a.   Demand for potatoes increases
    b.   Demand for potatoes decreases
    c.   Quantity demanded for potatoes increases
    d.   Quantity demanded for potatoes decreases

7. Assume the above market represents demand and supply for potatoes.
Holding everything else constant, what happens if the price for rice (a substitute of
potatoes) decreases?
    a.   The equilibrium price for potatoes increases
    b.   The equilibrium price for potatoes decreases
    c.   The equilibrium price for potatoes stays the same
    d.   The potato market will be out of equilibrium

8. In the above market, the equilibrium price is
    a.   5
    b.   6
    c.   7
    d.   8

9. In the above market, the equilibrium quantity is
    a. 5
    b. 6
    c. 7
    d. 8

10. In the above market, consumer surplus is
    a.   10.5
    b.   12.5
    c.   25
    d.   50

11. In the above market, producer surplus is
    a. 10.5
    b. 12.5
    c. 25
    d. 50

12. In the above market, welfare is
    a. 10.5
    b. 12.5
    c. 25
    d. 50

13. Assume the government interferes into the above market with a price floor of P=8, which statement is true?
    a. There will be excess demand
    b. There will be excess supply
    c. The quantity turned over in the market will be four.
    d. Both b. and c. are correct.

14. Assume the government interferes into the above market with a price floor of P=8, which statement is true?
    a. The new consumer surplus is 6
    b. The new consumer surplus is 6.5
    c. The new consumer surplus is 7
    d. The new consumer surplus is 8

15. Assume the government interferes into the above market with a price floor of P=8, which statement is true?
    a. The new producer surplus is 14
    b. The new producer surplus is 15.5
    c. The new producer surplus is 16
    d. The new producer surplus is 16.5

16. Assume the government interferes into the above market with a price floor of P=8, which statement is true?
    a. The dead weight loss is one
    b. The dead weight loss is two
    c. The dead weight loss is three
    d. The dead weight loss is four

17. Assume government imposes an excise tax of T=2 on the supply. What will be the new equilibrium price?
    a. 6
    b. 7
    c. 8
    d. 9

18. Assume government imposes an excise tax of T=2 on the supply. What will be the new equilibrium quantity?
    a. 3
    b. 4
    c. 5
    d. 6

19. Assume government imposes an excise tax of T=2 on the supply. What will be the total tax revenues?
    a. 2
    b. 4
    c. 8
    d. 16

20. Assume government imposes an excise tax of T=2 on the supply. What will be the dead weight loss?
    a. 0.5
    b. 1
    c. 2
    d. 4