Answer Key

1. False

2. False

3. True

4. False

5. True

6. False

7. True

8. False

9. False

10. False

11. False

12. False

13. b

14. d

15. c

16. a

17. d

18. a

19. a

20. a

21. b

22. b

23. c

24. d

25. b

26. c

27. a

28. b

29. c

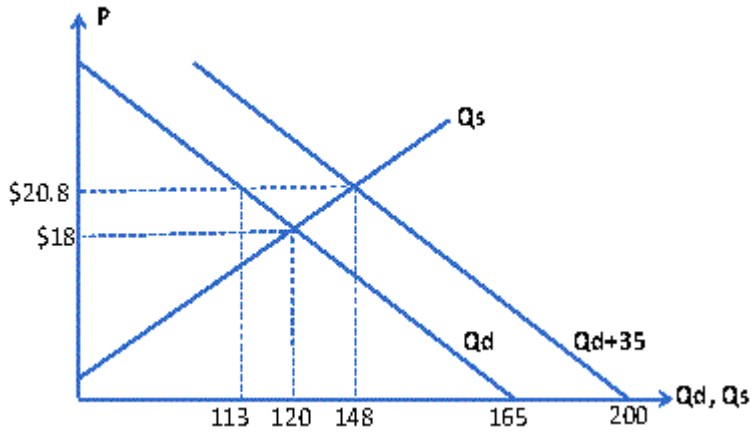
30. b

31. a

32. c

33. a. If both tasks are divided equally, it will take 11 hours for the calculations and 15 hours for the slide preparation, for a total of 26 hours.
b. If Diane specializes in calculating and Gary specializes in preparing slides, it will take 22 hours to complete the project.
c. If Diane specializes in calculating, her opportunity cost will be $60; hence, Diane would be better off if she paid Gary any amount less than $60 to do the calculating. Since Gary's opportunity cost of doing the calculations is only $50, he would be better off if Diane paid him between $50 and $60 dollars to do the calculations. In this case, the total time spent on the project would be 20 hours.

34. a) The equilibrium price is given by the equation Qd=Qs with IM=0, or 165 – 2.5P = –60 + 10P. The results are P=18 and Qd=Qs=120.



b) After 350 families arrive to the city, the new demand curve is Qd = 165 + 35 – 2.5P = 200 – 2.5P. The old demand curve shifts to the right by a horizontal distance of 35, as shown in the graph.
c) The new equilibrium is P=20.8 and Qd=Qs=148.
d) Of the 1,200 "old" families who were able to buy a house before immigration, 70 [= (120 – 113) × 10)] cannot afford a house after the increase in price due to immigration.
e) The number of houses supplied increases by 280 [= (148 – 120) × 10].
f) According to this model, all immigrant families buy a house. If we knew that only about 10 percent of the newly arrived families would buy a house, the demand equation could be changed to Qd = (165 + 0.1 × IM) – 2.5P.

35. a. Percentage change in quantity for group I is about 7.7 percent, and since price discount is 15 percent, elasticity of demand for group I is about 0.51. Percentage change in quantity for group II is 20 percent, and since price discount is 15 percent, elasticity of demand for group II is about 1.33.
b. For group I, since the price elasticity of demand is 0.51 (demand is inelastic), total revenue will decrease as a result of the discount. For group II, since the price elasticity of demand is 1.33 (demand is elastic), total revenue will increase as a result of the discount.
c. If Company E wants to increase total revenue, it should definitely not offer the discount to group I and it should definitely offer the discount to group II.