CH 5:

9. \((20/-.8)(1.20/120) = -24/96 = -.25\). Absolute value = .25. A 10 percent increase in price would reduce quantity demanded by 2.5%.

10. Going down the Total Revenue column, you should have 9, 16, 21, 24, 25, 24, 21, 16. What you have in the Price Elasticity column depends on whether you calculate point elasticity or arc elasticity. Since the book uses arc elasticity, leave the first blank empty and use the second to enter the elasticity for the change from Q = 1 to Q = 2. Then continue the process for the other changes in Q. You should have the following down the column: -8.5, -3, -1.86, -1.22, -.82, -.54, and -.33. Note that when the absolute value of elasticity is greater than 1, lowering price increases Total Revenue but that when the absolute value of elasticity is less than one, lowering price decreases total revenue.

12. Using the arc formula, \((\text{change} \ Q/ \text{change} \ I)(\text{sum of I's/sum of Q's})\), you should get an income elasticity of 1.29 for Good 1. For Good 2, you should get 1/3. For Good 3, you should get -.60.

CH 6:

12. a. you complete; b. Yes, MU values fall; c. 4 of each will exhaust the $24 and maximize TU; d. 7 theater movies and 3 video store movies.

13. 4 of X and three of Y will maximize TU and exhaust $17

14. a. 4 of each; b. A=2, B=4, C=4; c. appears to be unitary E for good A, since consumer expenditure is $8 in both a and b.

CH 7:

17. Missing TP values are 31, 35; missing MPs are 10, 12, -1

18. With no labor, Q=0. Total fixed cost is 300 at any Q. Missing TVCs are 0, 225, 375. Missing TCs are 300, 375, 675, and missing MCs are undefined and 18.75.

b., MP = 4. c, 33.33.

19. Missing MPs are undef., 6, 9, 6, 3, 2. TCs, 18, 21, 24, 27. MCs, undef., .5, .33 .5, 1, 1.5. ATCs, undef. 2.5, 1.2, 1, 1, 1.04. a. 3. b. .50. c. 12. d, 3.

CH 8:

10. Missing nos.: TC 100, 200, 280, 400, 540, 700 880; TR 0, 150, 300, 450, 600, 750, 900; Profit/loss –100, -50, 20, 50, 60, 50, 60, 20. b. 4. c, MR = 150.

Calculate MC as change VC divided by change Q or change TC/change Q. d, MR > MC, then MR < MC.
11. Missing nos.: MC 10, 6, 4, 5, 6, 7, 8, 9, 10; AVC 10, 8, 6.67, 6.25, 6.20 6.33, 6.57, 6.88, 7.22. b, 0, 6, 9. d, -3, 1, 22.
12. a, need inf. b, shut down. c, need inf. d, need inf. e, produce. F, shut down. G, need inf.

CH 9:
15. a, Q =100. P=10. b, TR = 10(100) = 1000, TC = 7.5(100) = 750, profit = 250.

CH 10:
8. Missing nos.: FC always 100. TCs, 100, 150, 190, 250, 330, 430, 550, 690. TRs, 0, 90, 160, 210, 240, 250, 240, 210. Profit/loss = TR-TC. b, loss min. is –30. c, operate, all VC and all but 30 of FC are paid. d, MR > MC to Q = 2, then not.
12. a, 8000. b, 4000. c, 6m. d, 8000. e, If both are at 8000, there will be incentive for one to drop to 4000 and increase its profit.

CH 11:
10. a, missing MRPs: 21, 18, 15, 12, 9. c, 2 or 3 units. d, TR > expenditure on L by $9. e, new MRPs: 35, 30, 25, 20, 15. firm will use L = 4 or 5.
12. a, increases. b, decreases. c, Q demanded falls. d, decreases.