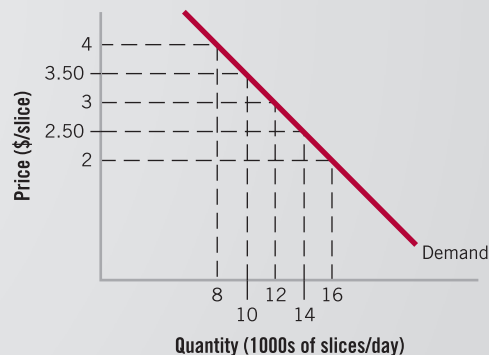




ANSWERS TO APPENDIX TO PART 1 EXERCISES (available on the OLC)

SECTION A: ECONOMICS AND THE MARKET

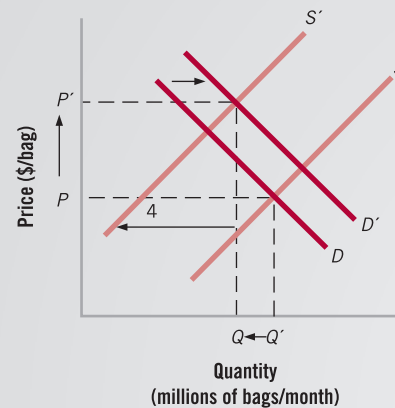
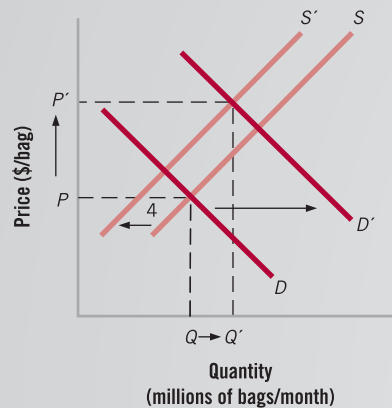
- A.1** The benefit of buying the game in the city is again \$10, but the cost is now \$12, so your economic surplus from buying it in the city would be $\$10 - \$12 = -\$2$. Since your economic surplus from making the trip would be negative, you should buy at the campus store.
- A.2** Saving \$100 is \$10 more valuable than saving \$90, even though the percentage savings is much greater in the case of the Sydney ticket.
- A.3** Since you now have no alternative use for your coupon, the opportunity cost of using it to pay for the Surfer's Paradise trip is zero. That means your economic surplus from the trip will be $\$1350 - \$1000 = \$350 > 0$, so you should use your coupon and go to Surfer's Paradise.
- A.4** The marginal benefit of the fourth launch is \$9 billion, which exceeds its marginal cost of \$8 billion, so the fourth launch should be added. But the fifth launch should not, since its marginal cost (\$12 billion) exceeds its marginal benefit (\$9 billion).
- A.5** At a quantity of 10 000 slices per day the marginal buyer's reservation price is \$3.50 per slice. At a price of \$2.50 per slice the quantity demanded will be 14 000 slices per day.



- A.6** At a quantity of 10 000 slices per day the marginal cost of pizza is \$2.50 per slice. At a price of \$3.50 per slice the quantity supplied will be 14 000 slices per day.

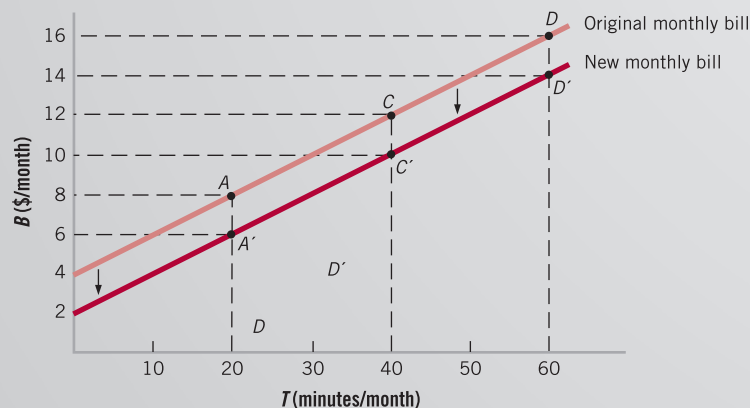


- A.7** Travel by air and travel by intercity bus are substitutes, so a decline in airfares will shift the demand for bus travel to the left, resulting in lower bus fares and fewer bus trips taken. Travel by air and the use of resort hotels are complements, so a decline in airfares will shift the demand for resort hotel rooms to the right, resulting in higher hotel rates and an increase in the number of rooms rented.
- A.8** A pay increase for public servants will shift the demand curve for private schools upwards, which will lead to an increase in their equilibrium price and quantity.
- A.9** A fall in pay for carpenters will shift the supply curve for new houses upwards, which will lead to an increase in their equilibrium price and a fall in their equilibrium quantity.
- A.10** The vitamin discovery shifts the demand for chips to the right, and the crop losses shift the supply of chips to the left. Both shifts result in an increase in the equilibrium price of chips. But depending on the relative magnitude of the shifts, the equilibrium quantity of chips may either rise (left panel) or fall (right panel).

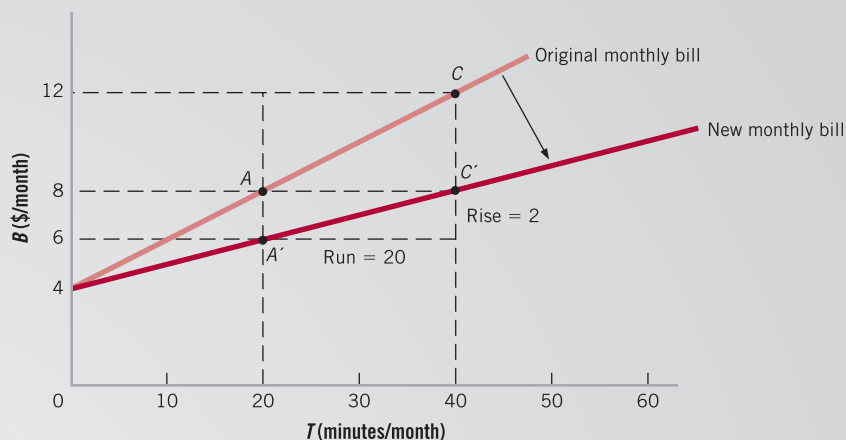


SECTION B: WORKING WITH EQUATIONS, GRAPHS AND TABLES (available online through Connect Plus)

- B.1** To calculate your monthly bill for 45 minutes of calls substitute 45 minutes for T in equation B.1 to get $B = 5 + 0.10(45) = \$9.50$.
- B.2** Calculating the slope using points A and C, we have $\text{rise} = 30 - 24 = 6$ and $\text{run} = 30 - 15 = 15$, so $\text{rise/run} = 6/15 = 2/5 = 0.40$. And since the horizontal intercept of the line is 18, its equation is $B = 18 + 0.40T$. Under this plan the fixed monthly fee is \$18, and the charge per minute is the slope of the billing line, 0.40, or 40 cents per minute.
- B.3** A \$2 reduction in the monthly fixed fee would produce a downward parallel shift in the billing plan by \$2.



- B.4** With an unchanged monthly fixed fee, the vertical intercept of the new billing plan continues to be 4. The slope of the new plan is 0.10, half the slope of the original plan.



- B.5** Let the billing equation be $B = f + sT$, where f is the fixed monthly fee and s is the slope. From the first two points in the table, calculate the slope $s = \text{rise/run} = 10/10 = 1.0$. To calculate f , we can use the information in row one of the table to write the billing equation as $20 = f + 1.0(10)$ and solve for $f = 10$. So, the monthly billing equation must be $B = 10 + 1.0T$. For this billing equation, the fixed fee is \$10 per month, the calling charge is \$1 per minute and the total bill for a month with 1 hour of long-distance calls is $B = 10 + 1.0(60) = \$70$.