

Ec360 Homework 1

1. If she spends all of her income on lemons and tangerines, Isabella can just afford 30 lemons and 8 tangerines per day. She could also use her entire budget to buy 6 lemons and 14 tangerines per day. The price of lemons is 6 guineas each. How much is Isabella's income per day?
 - a 372 guineas
 - b 377 guineas
 - c 371 guineas
 - d 363 guineas
 - e None of the above.
2. Teresa spends her entire budget and consumes 6 units of x and 20 units of y . The price of x is twice the price of y . Her income doubles and the price of y doubles, but the price of x stays the same. If she continues to buy 20 units of y ; what is the largest number of units of x that she can afford?
 - a 12
 - b 6
 - c 14
 - d 16
 - e There is not enough information to say.
3. If she spends her entire budget, Heidi can afford 39 peaches and 12 pears. She can also just afford 24 peaches and 17 pears. The price of peaches is 9 cents. What is the price of pears in cents?
 - a 37
 - b 3
 - c 12
 - d 27
 - e None of the above.

4. Fanny consumes goods x and y . Her indifference curves are described by the formula $y = k(x + 7)$. Higher values of k correspond to better indifference curves. Which of the following is true?
- a** Fanny likes good y and hates good x .
 - b** Fanny prefers bundle $(8, 9)$ to bundle $(9, 8)$.
 - c** Fanny prefers bundle $(9, 5)$ to bundle $(5, 9)$.
 - d** Fanny likes good x and hates good y .
 - e** More than one of the above statements are true.
5. If two goods are both desirable and preferences are convex, then:
- a** there must be a kink in the indifference curves.
 - b** indifference “curves” must be straight lines.
 - c** if two bundles are indifferent, then an average of the two bundles is worse than either one.
 - d** the marginal rate of substitution is constant along indifference curves
 - e** None of the above.
6. Dr. Kremepuff gives 3 midterm exams. He drops the lowest and gives each student her average score on the other two exams. Polly Sigh is taking his course and has a 60 on her first exam. Let x_2 be her score on the second exam and x_3 be her score on the third exam. If we draw her indifference curves for scores on the second and third exams with x_2 represented by the horizontal axis and x_3 represented by the vertical axis, then her indifference curve through the point $(x_2, x_3) = (50, 70)$ is:
- a** L-shaped with a kink where $x_2 = x_3$.
 - b** three line segments, one vertical, one horizontal, and one running from $(70, 60)$ to $(60, 70)$.
 - c** a straight line, running from $(0, 120)$ to $(120, 0)$.
 - d** three line segments, one vertical, one horizontal, and one running from $(70, 50)$ to $(50, 70)$.
 - e** a V-shaped curve with its point at $(50, 70)$.

This homework is due in class Tuesday, Sept. 14.
Please show your reasoning along with your answers.