

Mid term exams



Current Location MAT540084GA063-1118-001 Week 8 Review Test

Submission: Quiz #4 Menu Management Options Expand All Collapse All

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Week 9 Review Test Submission: Quiz #4 Content User| Tammi Alise Banks |

Course| Quantitative Methods | Test| Quiz #4 | Started| 11/29/11 10: 05 PM |

Submitted| 11/29/11 11: 04 PM | Status| Completed | Score| 18 out of 40

points | Time Elapsed| 59 minutes out of 1 hour. | Instructions| | Question 1

out of 2 points | | | Determining the production quantities of different

products manufactured by a company based on resource constraints is a

product mix linear programming problem. Answer| | | | Selected Answer:|

True| Correct Answer:| True| | | | Question 2 0 out of 2 points | | |

_____ solutions are ones that satisfy all the constraints simultaneously.

Answer| | | | Selected Answer:| optimal| Correct Answer:| feasible| | | |

Question 3 0 out of 2 points | | | The owner of Chips etc. produces 2 kinds of

chips: Lime (L) and Vinegar (V).

He has a limited amount of the 3 ingredients used to produce these chips

available for his next production run: 4800 ounces of salt, 9600 ounces of

flour, and 2000 ounces of herbs. A bag of Lime chips requires 2 ounces of

salt, 6 ounces of flour, and 1 ounce of herbs to produce; while a bag of

Vinegar chips requires 3 ounces of salt, 8 ounces of flour, and 2 ounces of

herbs. Profits for a bag of Lime chips are \$0. 40, and for a bag of Vinegar

chips \$0. 50. Which of the following is not a feasible production combination?

Answer| | | | Selected Answer:| 0L and 1000V| Correct Answer:| 0L and

1200V| | | | Question 4 out of 2 points | | | A constraint for a linear

programming problem can never have a zero as its right-hand-side value.

Answer| | | | Selected Answer:| True| Correct Answer:| False| | | | Question

5 0 out of 2 points | | | The production manager for the Softy soft drink

company is considering the production of 2 kinds of soft drinks: regular and

diet. Two of her resources are constraint production time (8 hours = 480

minutes per day) and syrup (1 of her ingredient) limited to 675 gallons per

day. To produce a regular case requires 2 minutes and 5 gallons of syrup,

while a diet case needs 4 minutes and 3 gallons of syrup.

Profits for regular soft drink are \$3. 00 per case and profits for diet soft drink

are \$2. 00 per case. What is the optimal daily profit? Answer| | | | Selected

Answer:| \$270| Correct Answer:| \$420| | | | Question 6 0 out of 2 points | | |

In a media selection problem, the estimated number of customers reached

by a given media would generally be specified in the _____. Even

if these media exposure estimates are correct, using media exposure as a

surrogate does not lead to maximization of _____. Answer| | | |

Selected Answer:| problem constraints, sales| Correct Answer:| objective

function, profits| | | |

Feature Article - MidTerm Exam Review

Question 7 2 out of 2 points | | | In an unbalanced transportation model,

supply does not equal demand and supply constraints have signs. Answer| | |

| | Selected Answer:| True| Correct Answer:| True| | | | Question 8 0 out of 2

points | | | A croissant shop produces 2 products: bear claws (B) and almond

filled croissants (C). Each bear claw requires 6 ounces of flour, 1 ounce of

yeast, and 2 TS of almond paste. An almond filled croissant requires 3

ounces of flour, 1 ounce of yeast, and 4 TS of almond paste. The company has 6600 ounces of flour, 1400 ounces of yeast, and 4800 TS of almond paste available for today's production run.

Bear claw profits are 20 cents each, and almond filled croissant profits are 30 cents each. What is the optimal daily profit? Answer| | | | Selected Answer:| \$400| Correct Answer:| \$380| | | | Question 9 2 out of 2 points | | | In a media selection problem, instead of having an objective of maximizing profit or minimizing cost, generally the objective is to maximize the audience exposure. Answer| | | | Selected Answer:| True| Correct Answer:| True| | | | Question 10 2 out of 2 points | | | In a balanced transportation model, supply equals demand such that all constraints can be treated as equalities.

Answer| | | | Selected Answer:| True| Correct Answer:| True| | | | Question 11 0 out of 2 points | | | Profit is maximized in the objective function byAnswer| | | | Selected Answer:| subtracting revenue from cost| Correct Answer:| subtracting cost from revenue| | | | Question 12 0 out of 2 points | | | In a multi-period scheduling problem the production constraint usually takes the form of : Answer| | | | Selected Answer:| beginning inventory + demand + production = ending inventory| Correct Answer:| beginning inventory - demand + production = ending inventory| | | | Question 13 2 out of 2 points | | | When formulating a linear programming model on a spreadsheet, the measure of performance is located in the target cell.

Answer| | | | Selected Answer:| True| Correct Answer:| True| | | | Question 14 0 out of 2 points | | | Media selection is an important decision that advertisers have to make. In most media selection decisions, the objective of the decision maker is to minimize cost. Answer| | | | Selected Answer:|

False| Correct Answer:| True| ||| Question 15 2 out of 2 points ||| The production manager for Liquor etc. produces 2 kinds of beer: light and dark. Two of his resources are constrained: malt, of which he can get at most 4800 oz per week; and wheat, of which he can get at most 3200 oz per week. Each bottle of light beer requires 12 oz of malt and 4 oz of wheat, while a bottle of dark beer uses 8 oz of malt and 8 oz of wheat. Profits for light beer are \$2 per bottle, and profits for dark beer are \$1 per bottle. What is the objective function? Answer| ||| Selected Answer:| $Z = \$2L + \$1D$ | Correct Answer:| $Z = \$2L + \$1D$ | |||

||| Question 16 2 out of 2 points ||| The dietician for the local hospital is trying to control the calorie intake of the heart surgery patients. Tonight's dinner menu could consist of the following food items: chicken, lasagna, pudding, salad, mashed potatoes and jello. The calories per serving for each of these items are as follows: chicken (600), lasagna (700), pudding (300), salad (200), mashed potatoes with gravy (400) and jello (200). If the maximum calorie intake has to be limited to 1200 calories. What is the dinner menu that would result in the highest calorie intake without going over the total calorie limit of 1200.

Answer| ||| Selected Answer:| chicken, mashed potatoes and gravy, and salad | Correct Answer:| chicken, mashed potatoes and gravy, and salad | |||

| Question 17 0 out of 2 points ||| _____ is maximized in the objective function by subtracting cost from revenue. Answer| ||| Selected Answer:| Productivity| Correct Answer:| Profit| ||| Question 18 2 out of 2 points |||

The standard form for the computer solution of a linear programming problem requires all variables to the right and all numerical values to the left of the inequality or equality sign Answer| ||| Selected Answer:| False|

Correct Answer:| False| ||| Question 19 0 out of 2 points ||| Linear

programming model of a media selection problem is used to determine the

relative value of each advertising media. Answer| ||| Selected Answer:|

True| Correct Answer:| False| ||| Question 20 2 out of 2 points ||| When

using linear programming model to solve the “ diet” problem, the objective is

generally to maximize profit. Answer| ||| Selected Answer:| False| Correct

Answer:| False| ||| Tuesday, November 29, 2011 11: 05: 08 PM EST OK