

MA 162 - Exam #2 Grading

Below you will find some descriptions of how certain problems on the exam were graded. Please refer to this **BEFORE** emailing to ask about whether a question was graded correctly.

Question 1: Two different acceptable methods here. If you used Gauss-Jordan, then (a) was approximately two points per row operation. If you used the formula, then (a) was approximately 4 points for the correct $ad - bc$ and 1 point per entry in the final answer. Algebra mistakes were 1 - 2 points off.

For part (b), typically 1 point off for algebra mistakes.

Question 2: Part (a) was 2 points each for x -intercept, y -intercept, having a dashed line, and shading the correct side.

For part (b), 2 points off for algebra mistakes and 2 - 4 points off if the work shown wasn't enough.

Question 3: You should see a list of 6 things on your graded exam. In order these correspond to the following parts of the answer:

- (1) 2 points for declaring variables
- (2) 2 points for the correct objective function
- (3) 5 points for constraints (1 pt each including the non-negativity constraints)
- (4) 5 points for drawing the correct feasible region
- (5) 4 points for evaluating the objective function at the corner points
- (6) 2 points for the final answer in sentence form

Question 4: 10 points

2 points for declaring all three variables

3 points for objective function

1 for indicating $x \geq 0$, $y \geq 0$, and $z \geq 0$

4 for the remaining constraints

-1 if equality/inequality is incorrect in any of the constraints

2 points for getting two of the constraints (even if the equality/inequality is wrong)

Question 5: There were six answers to be given here.

- (1) -1 for missing one of the six
- (2) -2 for missing two of the six
- (3) -3 for missing three of the six
- (4) -4 for missing four of the six
- (5) -6 for missing five of the six
- (6) -8 for missing all six

Question 6: 20 points

- a) 3 points all or nothing
- b) 2 points for the correct entry
- 4 points for correct description pivot column
- 4 points for correct description of pivot row

awarded 4 points if incorrect pivot chosen with some explanation

- c) 7 points for correctly performing row operations (even if using the incorrect pivot entry)
- 6 points if minor arithmetic operation
- 4 otherwise

Question 7:

- (a) 2 points all or nothing
- (b) 6 points - 2 point penalty for switching the signs on the entries in the last row, other mistakes had varying penalties
- (c) 4 points - to get full credit you had to say something about switching from minimizing C to maximizing $-C$. Most mistakes were minus 2 points.