

# Math 242–HW 2 Rubric

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There are 23 points total on this assignment.

1. 1 point for completion
2. 5 points. 1 point for effort. 1 point for first computing  $f_x$ . When computing  $f_x$ , 1 point for knowing to use the product rule, and 1 point for doing it correctly. 1 point for correctly computing the  $y$  derivative of whatever they got for  $f_x$ . Note: 0 points should be awarded if they just write down  $f_{xy} = e^x + xe^x$  without any supporting work (after all, I tell them that this is the answer in the statement of the question).
3. 13 points total
  - (a) 3 points total: 1 point for correctly computing  $Q_s(s, u)$ , 1 point for correctly computing  $Q_u(s, u)$ , and 1 point for plugging in  $s = 4$  and  $u = 6$ .
  - (b) 3 points total: 1 point for using complete sentences, 1 point for including each number in their sentences (i.e. there should be some mention of what the numbers 4, 6, 44, and 15 mean), and 1 point for using correct units.
  - (c) 4 points total: 2 points for  $Q_{ss}$  (1 point for making progress in the computation and 1 point for the actual correct answer) and 2 points for  $Q_{uu}$  (1 point for progress, 1 point for the correct answer)
  - (d) 3 points total: 1 point for using complete sentences, 1 point for giving a good explanation for why production is increasing at an increasing rate when adding skilled workers, and 1 point for giving a good explanation for why production is increasing at a constant rate when adding unskilled workers.
4. 2 points for completion (1 point for each part).
5. 2 points for completion (1 point for each part).