

Fall 2019 COT 3100 Homework #4 Grading Criteria - Total 20 points

Four questions to grade carefully:

Question #2 (5 pts)

Question #3 (5 pts)

Question #4 (2 pts)

Question #7 (3 pts)

Q2 (5 pts) - 1 pt Euclidean, 2 pts Extended to get sol for part (a), 1 pt for part (b), 1 pt for part (c)

Items to comment upon: Any algebra mistakes in Extended Euclidean, Reading off the result for the $=1$ equation, using the proper offsets and the signs on the offsets, how multiplying by 8 affects the answer (**note: no need for the student to change the canonical answer from say 272,-344 to something "smaller"**), and how to take an equation mod 105.

Q3 (5 pts) - 4 pts for getting the appropriate way to represent $12x+y$, 1 pt to finish it up

Comment on: If they use the equating coefficient technique, comment on how they set up and solved their equations. You can't really divide mod equations, so comment on this if they tried to. If they got it out of thin air correctly, there's not a ton to comment on.

Q4 (2 pts) - 1 pt for each answer.

Just comment on them properly writing things out in prime factorized form and if they picked the wrong exponent...comments here will be pretty short.

Q7 (3 pts) - 2 pts for stating a valid counter example, 1 pt for explaining why it's a counter example.

Just comment if they don't clearly state a counter-example, or if they state one that is invalid to use.

Questions 1, 5, 6 and 8 - very quickly eyeball and award 0, 1, 2, 3, 4 or 5 points out of 5. Only give full credit if the answer for #1 is correct and the write-up for Euler is reasonable.