

### Fall 2016 COT 3100 Homework #3 Grading Criteria

Three questions to grade carefully:

Question #1 (0 if tried to prove, 1 if disprove but counter example isn't clear to understand, 2 if counterexample is clear)

Question #6 (0 if no useful work, 1 if regular Euclidean done, 2 if did a majority of the Extended Euclidean)

Question #7 (0 if nothing of substance, 1 if wrote down  $ai \equiv aj \pmod n$  for  $0 < i \neq j < n$ , 2 pts for carrying out proof to fruition)

Items to comment upon for each question:

Q1: Help students understand how to improve the clarity of their response.

Q6: Point out any arithmetic errors in students work as well as situations they should simplify the equation they are working with and how.

Q7: Explain the structure with which proof by contradictions should be written and write in missing steps if necessary.

Questions 2,3,4,5,8,9,10 - very quickly eyeball and award 0, 1, 2, 3 or 4 points out of 4. As long as these look roughly complete please just give 4/4. Only give a lower score if there are very clear deficiencies that you can gauge by glancing at their responses for 15 seconds or fewer. I don't expect the responses to #5 to be great so you can still give 4/4 even if this one's mostly incorrect. But...they must do #10 and it must be reasonable. If not, do NOT give 4/4.