

Fall 2017 COT 3100 Homework #2 Grading Criteria

Three questions to grade carefully:

Question #1 (6 pts)

Question #2 (5 pts)

Question #6 (5 pts)

Q1 (6 pts) - 1 pt for letting $n = 2k+1$ (or whatever variable other than k), 3 pts for getting to a 4 factored out, 2 pts for the formal proof that $k(k+1)$ is even and then applying that to get the final result.

Items to comment upon: Their method of writing out the proof, if they didn't plug in $2k+1$, if there were algebra errors, if they didn't show the $k(k+1)$ result formally...

Q2 (5 pts) - 2 pts for direct, 3 pts for contradiction, 1 pt for plugging in an even substitution for n , 1 pt for the algebra, for the other way, 1 pt for plugging in an odd for $3n+2$, 1 pt for plugging in n is even, 1 pt for the contradiction.

Items to comment upon: Style of writing it up, not plugging in appropriately for odd and even or not stating what each variable stands for.

Q6 (5 pts) - Lots of ways to do this. If they do it my way, 1 pt off for skipping steps, and scale it proportionately keeping in mind that we only have 5 pts, 2 pts off for not listing reasons at all, 1 pt off for incorrect steps (scaled). If they go a different route (subset route), then have to prove both directions. 3 pts for one direction 2 pts for the other.

Items to comment upon: If they skip the reasons or do an incorrect step, explain why.

Questions 2,3, 6 and 7 - very quickly eyeball and award 0, 1, 2, 3, or 4 points out of 4. Only give full credit if #4 is answered correctly. If there is an error in #4 but the rest is solid, give 3/4. Otherwise, just approximate completeness and correctness in a 30 second glance and pick a value from 0 to 4.