

Examlet 3 Example Rubrics

Table 1: Onto or one-to-one proof (12 points)

Criteria	Mastered (4)	Proficient (3)	Novice (1)	Absent (0)
Proof outline	the proof outline matches the correct definition	small bug in proof outline (no variable declaration, etc.)	many bugs, or outline not in logical order	completely incorrect, OR proved onto when asking for one to one or vice versa
Details (structural/algebraic)	proof is able to get to the conclusion via the important structural/algebraic fact (e.g., another function g is onto)	missing some algebra or small structural error	large algebra or structural error	unable to reach conclusion because proof doesn't use major facts to reach it
Style and clarity	easy to follow	slightly hard to follow, not enough connector words	difficult to follow due to too much unnecessary detail	very difficult to follow, no connector words

Table 2: Chromatic number proof (7 points)

Criteria	Mastered (1)	Novice (0)		
Raw answer	correct	incorrect		
Criteria	Mastered (3)	Acceptable (2)	Novice (1)	Absent (0)
Upper bound argument	gives a valid coloring	gives an almost valid coloring	gives an incorrect coloring	missing upper bound
Lower bound argument	gives local feature or a careful analysis of how to color the graph	gives local feature that is not the strictest lower bound, or a tight bound with bad justification	analysis of graph coloring is not careful enough but with small changes could give lower bound	missing lower bound