## Examlet 3 Example Rubrics

Table 1: Onto or one-to-one proof (10 points)

Criteria	Mastered (4)	Proficient (3)	Novice (2-1)	Absent (0)
Proof outline	the proof outline	small bug in	many bugs, or	completely incor-
	matches the cor-	proof outline (no	outline not in log-	rect, OR proved
	rect definition	variable declara-	ical order	onto when asking
		tion, etc.)		for one to one or
				vice versa
Criteria	Mastered (3)	Proficient (2)	Novice (1)	Absent (0)
Details (struc-	proof is able to	missing some al-	large algebra or	unable to reach
tural/algebraic)	get to the con-	gebra or small	structural error	conclusion be-
	clusion via the	structural error		cause proof
	important struc-			doesn't use ma-
	tural/algebraic			jor facts to reach
	fact (e.g., an-			it
	other function g			
	is onto)			
Style and clarity	easy to follow	slightly hard	difficult to follow	very difficult to
		to follow, not	due to too much	follow, no con-
		enough connector	unnecessary de-	nector words
		words	tail	

There is a 1 point deduction for not using  $\text{\fontfamily{1}AT}_{E}X$  where it is needed.

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 ar-	gives a valid col-	gives an almost	gives an incorrect	missing upper
gument	oring	valid coloring	coloring	bound
Lower bound ar-	gives local feature	gives local fea-	analysis of graph	missing lower
gument	or a careful anal-	ture that is not	coloring is not	bound
	ysis of how to	the strictest	careful enough	
	color the graph	lower bound, or a	but with small	
		tight bound with	changes could	
		bad justification	give lower bound	

There is a 0.25 point deduction for not using  $\LaTeX$  where it is needed.