

Mathematics AA and AI Exploration Marking Checklist (SL)

Note: this checklist is for students to self-reflect on; no marks are being given for the First Draft, only indications of where improvements can be made

	A - Presentation (4)	B - Mathematical Communication (4)	C - Personal Engagement (3)	D - Reflection (3)	E - Use of Mathematics (6)										
0	The exploration does not reach the standard described by the descriptors below.					0									
1	The exploration has some coherence or some organization. <input type="checkbox"/>	The exploration contains some relevant mathematical communication, which is partially appropriate. <input type="checkbox"/>	There is evidence of some personal engagement. <input type="checkbox"/>	There is evidence of limited reflection. <input type="checkbox"/>	Some relevant mathematics is used (1/2) <input type="checkbox"/>	1									
2	The exploration has some coherence <input type="checkbox"/> The exploration shows some organization. <input type="checkbox"/>	The exploration contains some relevant appropriate mathematical communication. <input type="checkbox"/>	There is evidence of significant personal engagement. <input type="checkbox"/>	There is evidence of meaningful reflection. <input type="checkbox"/>	Limited understanding is demonstrated. (2/3) <input type="checkbox"/>	2									
3	Exploration is coherent. <input type="checkbox"/> It is well organized. <input type="checkbox"/>	The mathematical communication is relevant, appropriate and is mostly consistent. <input type="checkbox"/>	There is evidence of outstanding personal engagement <input type="checkbox"/>	There is substantial evidence of critical reflection. <input type="checkbox"/>	Relevant mathematics commensurate with the level of the course is used. (3 – 6) <input type="checkbox"/>	3									
4	Exploration is coherent. <input type="checkbox"/> It is well organized. <input type="checkbox"/> Exploration is concise. <input type="checkbox"/>	The mathematical communication is relevant, appropriate and consistent throughout. <input type="checkbox"/>	/	/	The mathematics explored is partially correct. (4) <input type="checkbox"/>	4									
The checklists below provide more specific details for each criterion. Particularly for C and D these are examples of what can be done, and there is no expectation that they must all be done to obtain top marks. Ultimately scores are based on the descriptors above and are done holistically.					Some knowledge and understanding are demonstrated. (4) <input type="checkbox"/>	4									
	Included a clear introduction. <input type="checkbox"/>	Used appropriate mathematical language and terminology. <input type="checkbox"/> <input type="checkbox"/> Some <input type="checkbox"/> Mostly <input type="checkbox"/> Throughout	Outlined a personal connection and related the exploration to personal interests/experiences. <input type="checkbox"/>	Considered significance of the exploration. <input type="checkbox"/> Made links to different fields or areas of math <input type="checkbox"/>	The mathematics explored is mostly correct. (5) <input type="checkbox"/>	5									
	Provided a clear aim outlining the purpose of the exploration. <input type="checkbox"/>	Used appropriate mathematical notation and symbols (not calculator/computer). <input type="checkbox"/> <input type="checkbox"/> Some <input type="checkbox"/> Mostly <input type="checkbox"/> Throughout	Asked and answered “I wonder if...”, “What would happen if...”, “Why does this happen...” questions. <input type="checkbox"/>	Made comments on the process & results and how they could be improved. <input type="checkbox"/>	Good knowledge and understanding are demonstrated. (5) <input type="checkbox"/>	5									
	Provided a clear rationale explaining why the topic was chosen. <input type="checkbox"/>	Defined key terms and/or variables before they are used. <input type="checkbox"/> <input type="checkbox"/> Some <input type="checkbox"/> Mostly <input type="checkbox"/> Throughout	Asked questions, made conjectures, investigated ideas. <input type="checkbox"/> Presented ideas in their own way. <input type="checkbox"/>	Made comments within the context of the subject matter. <input type="checkbox"/> Reflected on analytical process of exploring. <input type="checkbox"/>	The mathematics explored is correct. Thorough knowledge and understanding are demonstrated. (6) <input type="checkbox"/>	6									
	Exploration is broken up into headings, where appropriate. <input type="checkbox"/>	Used multiple forms of mathematical representation (formulae, diagrams, tables charts, graphs, models) where appropriate. <input type="checkbox"/>	Looked for and created models for real-world situations, where relevant <input type="checkbox"/> Collected own data, where relevant. <input type="checkbox"/>	Made conclusions that refer back to the aim & rationale. <input type="checkbox"/> Commented on what they have learned. <input type="checkbox"/>	Relevance <input type="checkbox"/>	Understand <input type="checkbox"/>	Correct <input type="checkbox"/>								
	Explanations are logically developed and easy to follow. <input type="checkbox"/>	Approximation sign used when appropriate <input type="checkbox"/> Appropriate degree of accuracy used. <input type="checkbox"/> Used a deductive method and set out proofs logically where appropriate. <input type="checkbox"/>	Considered historical and global perspectives, where appropriate. <input type="checkbox"/> Researched relevant background info using external sources. <input type="checkbox"/>	Made comments on possible limitations. <input type="checkbox"/> Considered modifications that could lead to an extension or future explorations. <input type="checkbox"/>	Some <input type="checkbox"/>	Limited <input type="checkbox"/>		1							
	Explanations should make sense to another student in this course. <input type="checkbox"/>	Graphs show all relevant features. <input type="checkbox"/> Headings/keys/axes labeled on graphs, diagrams, tables, spreadsheets. <input type="checkbox"/>	Conclusions relate back to the original rationale & student interest shown in introduction. <input type="checkbox"/>	Discussed implications of results. <input type="checkbox"/> Discussed strengths & weaknesses of approaches and why an approach was chosen. <input type="checkbox"/>	Some <input type="checkbox"/>	Some <input type="checkbox"/>	Partially <input type="checkbox"/>	2							
	Graphs, tables, diagrams, in the appropriate place, and explained clearly. <input type="checkbox"/>	ICT tools used appropriately (GDC, screenshots, graphing, spreadsheets, databases, drawing & word processing). <input type="checkbox"/>	Conclusions, reflections & arguments show originality of thought and independent thinking. <input type="checkbox"/>	Considered different perspectives. <input type="checkbox"/> Reflection is present throughout. <input type="checkbox"/>	Relevant <input type="checkbox"/>	Some <input type="checkbox"/>	Correct <input type="checkbox"/>	3							
	Work is concise, with no irrelevant calculations or discussions. <input type="checkbox"/>	Language <input type="checkbox"/>	Notation & Symbols <input type="checkbox"/>	Terms <input type="checkbox"/>	Forms <input type="checkbox"/>	Results <input type="checkbox"/>	Process <input type="checkbox"/>	Improve <input type="checkbox"/>	Relevant <input type="checkbox"/>	Good <input type="checkbox"/>	Correct <input type="checkbox"/>	4			
	Sensible conclusion based on findings. <input type="checkbox"/>	Some <input type="checkbox"/>	Some <input type="checkbox"/>	Some <input type="checkbox"/>	Few <input type="checkbox"/>	1	Made the exploration “their own”, not just a written report. <input type="checkbox"/>	Limited <input type="checkbox"/>	Limited <input type="checkbox"/>	Limited <input type="checkbox"/>	1	Relevant <input type="checkbox"/>	Thorough <input type="checkbox"/>	Sophistication or rigour <input type="checkbox"/>	5
	References cited properly. <input type="checkbox"/> Double-spaced. <input type="checkbox"/>	Most <input type="checkbox"/>	Most <input type="checkbox"/>	Most <input type="checkbox"/>	Some <input type="checkbox"/>	2	Made suitable improvements using feedback for the draft. <input type="checkbox"/>	Meaningful <input type="checkbox"/>	Meaningful <input type="checkbox"/>	Meaningful <input type="checkbox"/>	2	Relevant <input type="checkbox"/>	Thorough <input type="checkbox"/>	Precise, sophistication and rigour <input type="checkbox"/>	6
	Page numbers included. <input type="checkbox"/>	All <input type="checkbox"/>	All <input type="checkbox"/>	All <input type="checkbox"/>	Many <input type="checkbox"/>	3	Student’s voice is heard. <input type="checkbox"/>	Critical <input type="checkbox"/>	Critical <input type="checkbox"/>	Critical <input type="checkbox"/>	3				6
Level:		Level:			Level:			Level:			Level:				