

Dear Student,

Your Mathematics Investigation has been uploaded to Compass (School documentation | Curriculum and assessment | Mathematics | Year 8 | Computational Thinking). It will make use of the Computational and Algorithmic Thinking (CAT) skills that you have developed so far.

Take time to read it in its entirety before you begin (use a highlighter and take notes) and get in touch with Mr Kigodi in week 9 if anything is unclear.

It is strongly advised that you start with pencil and paper and think carefully about how you might approach the tasks of each section.

As you are already aware, the majority of the marks are allocated to your detailed design work as documented in your slides, and to a history of frequent and detailed commits made using VS Code (see the attachment for an example). If you are not sure how to do this, contact Mr. Kigodi during week 9.








The due date for the design slides and code is Friday 26 April 2024 (end of term 2 week 2). Make sure your final commit is made by the due date as detailed in the investigation instructions.

It is important that you spend some time each week working through this investigation (above and beyond the time that you will be given in class). You are NOT expected to work on this task during the two-week school holidays.

During week 3, you will present your design slides, history of commits and code to a random group of classmates with teacher supervision.

Send an email to [isaac.kigodi@education.wa.edu.au](mailto:isaac.kigodi@education.wa.edu.au) as soon as possible if you need assistance or have questions on any of the above (include screenshots of any error messages).

Regards,  
Year 8 Mathematics Teachers.

Graph	Description	Date	Author
	<b>Uncommitted Changes (10)</b>	23 Feb 2024 14:47	*
	 <b>main</b> Vertex coordinates by TV	29 Sep 2023 17:23	ikigodi
	floored the scale factor for consistency	17 Sep 2023 14:21	Isaac Kigodi
	fixed +x ticks bug and added grid	17 Sep 2023 12:56	Isaac Kigodi
	comments for students	17 Sep 2023 12:45	Isaac Kigodi
	Cleaned up code	14 Sep 2023 22:15	Isaac Kigodi
	Green hover to help place coordinate	14 Sep 2023 21:30	Isaac Kigodi
	Reconstructed floored pygame coords and drawing rect	14 Sep 2023 21:15	Isaac Kigodi
	add clicked coords to a list	14 Sep 2023 20:16	Isaac Kigodi
	used math.floor() to round	14 Sep 2023 20:03	Isaac Kigodi
	scale the cartesian coords by the subdivision width	14 Sep 2023 19:56	Isaac Kigodi
	pygame coords converted to cartesian coords	14 Sep 2023 19:39	Isaac Kigodi
	<div><div>This is because top left in pygame is 0,0 and adding to x moves right, but adding to y moves DOWN</div><div>so we first need to subtract from x the x coord of the screen center subtract from y the y coord of the center, then invert the y coordinate</div><div>This basically creates virtual x and y axes centered on the top left this is virtual, just our internal representation for the sake of reporting cartesian x and y coordinates</div></div>	 <b>main.py</b> (+11 -0)	   
	Finished drawing all ticks	14 Sep 2023 19:15	Isaac Kigodi
	draw ticks in the -x direction	14 Sep 2023 19:01	Isaac Kigodi
	Draw ticks in +x direction	14 Sep 2023 18:57	Isaac Kigodi
	draw x and y axes	14 Sep 2023 18:11	Isaac Kigodi
	Update of app window	14 Sep 2023 17:52	Isaac Kigodi
	Initial commit	14 Sep 2023 17:49	Isaac Kigodi