Reflection #1:

Consider the topic of Technology in the mathematics classroom. You might reflect on any of the following questions:

- **How important are electronic technologies for learning mathematics? Explain.**
- **Is there an age or grade where electronic technologies are more important than others? (Which grades and why?)**
- **What are the *best* programs/software for learning mathematics? Explain**

I would argue that electronic technologies are essential to learn mathematics, especially within the highly technological world in which we live. As well, technology is becoming more prominent with the use of tablets, chrome books, smartboard and graphing calculators. These tools can be useful for engaging students in the context of the world in which we live. Additionally, since mathematics is a universal language, technology can help students connect to the mathematical dialogue that is happening all over the world. Certain programs and software can be used to highlight, illustrate, and practice essential math concepts at all age levels. However, there are certain cases where these programs can be used as solution generators, which although useful, can be detrimental to student practice. However, I think technology in mathematics is important for engaging and creating interest in mathematics. For instance, there are certain programs that allow practice of concepts through challenging games or competition between peers. Technology in the classroom can also highlight the significance and relevance of mathematics in the real world. For instance, relating prime numbers and prime factorization to computer science can be one way to introduce a discussion about mathematics in technology and in the real world.

Admittedly, I am not the most technologically savvy teacher in the classroom. In some cases I fear that my lack of technology or understanding of technology may become a barrier for student learning. However, I still think the use of technology is important and incredibly useful. As teachers, we must evaluate the usefulness and appropriateness of each program/software we choose to use. As such, my belief is that if technology is used to supplement and facilitate learning rather than just generate a solution in replace of practice, than it is essential to mathematics teaching.

Reflection #2:

Using the *Compass Points* framework, discuss the following: My professional growth plan for teaching with technology begins with _____

- **E --What excites you about this idea?**

- **W --What worries you about this idea?**

- **N --What do I need to know?**

- **S --Stance or suggestions for moving forward**

My professional growth plan for teaching with technology begins with the use of GeoGebra, Desmos or online mathematical games.

What excites me?

I'm motivated to become a well-rounded and dynamic teacher through the use of technology combined with other contemporary teaching methods. I believe this idea is exciting because I can learn to use programs that are more visual and engaging that help facilitate student learning and interest in mathematics. As well, I think the use of technology and online formats can help connect students and teachers to the mathematical dialogue that is happening all over the world. Sites like GeoGebra Tube can help connect teachers with various learning activities and lessons made by other teachers. As well, the use of these programs can also help involve students own technology which they so adamantly advocate for in the classroom. This is an exciting notion because the development of technology in the mathematics classroom can encourage interdisciplinary teaching.

What worries me?

Often times with the use of technology comes unpredictability and issues that may be a detriment to a lesson or activity. This is especially apparent when teachers are just learning to use a new program or software. As such, my worry is that my lack of knowledge of the use of technology may become a barrier for student learning in the class room. In addition, I question whether students will be able to use technology appropriately in the classroom. As such, it may be difficult for a teacher to monitor whether students are on-task if a lesson requires technological devices.

What do I need to know?

Besides the obvious being the need to know how to use these programs, I would also like to know where in the Program of Studies do these programs best facilitate student learning. I believe providing engaging and challenging activities are essential to learning but must be relevant to the overall learning objectives. It is important to present knowledge and information within students' zone of proximal development and/or for exploratory purposes and I believe these programs can help execute this is the classroom. As such, I believe it is important to know what the most appropriate uses of each program are and what are some time constraints or contextual variables that may limit my use of technology in the classroom. As such, this knowledge will help improve the execution of daily lessons and instruction.

My stance and suggestions moving forward:

Some suggestions for myself moving forward would be to actively engage in professional development sessions that use technology. I believe becoming more fluent and comfortable with the use of technology through practice with a variety of programs will help enrich my lesson plans moving forward. As teachers it is our professional duty to be continuously learning in order to be able to adapt to the ever evolving technological world in which we are teaching. As such, immersing oneself in activities and sessions using technology can be beneficial for becoming a well-rounded teacher. Lastly, I also believe that, like in mathematics, the use of technology can also bring challenges and struggles. However, if teachers can learn to persevere through those challenges I believe they will be able to troubleshoot problems and be more efficient users of technology.