



STELPUR DIFFRA

A summer camp in mathematics for female and gender-queer high school students in Iceland

Nanna Kristjánsdóttir



Historical role models



NOETHER 1882-1935 ERLANGEN; GÖTTINGEN, BRYN MAWR

EMMY NOETHER, DAUGHTER OF THE MATHEMATICIAN MAX, WAS OFTEN CALLED "DER NOETHER," AS IF SHE WERE A MAN. YET HER GÖTTINGEN PROFESSORSHIP CARRIED NO SALARY AND HILBERT HAD TO FIGHT TO GET HER — A WOMAN — IN AT ALL. SHE WAS FAT, ROUGH, AND LOUD, BUT SO KIND, HUMOROUS AND SOCIABLE THAT ALL WHO KNEW HER LOVED HER. WITH THE NAZI RISE TO POWER SHE LEFT FOR THE UNITED STATES.



Discourse within mathematics and physics academically

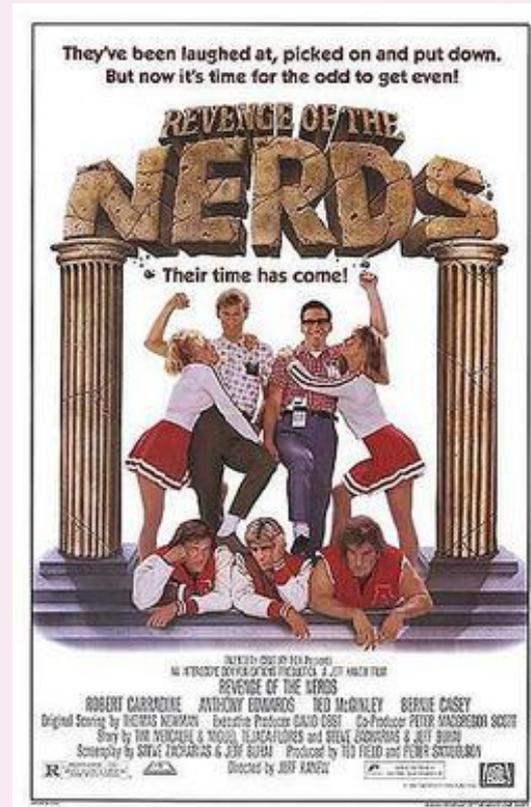
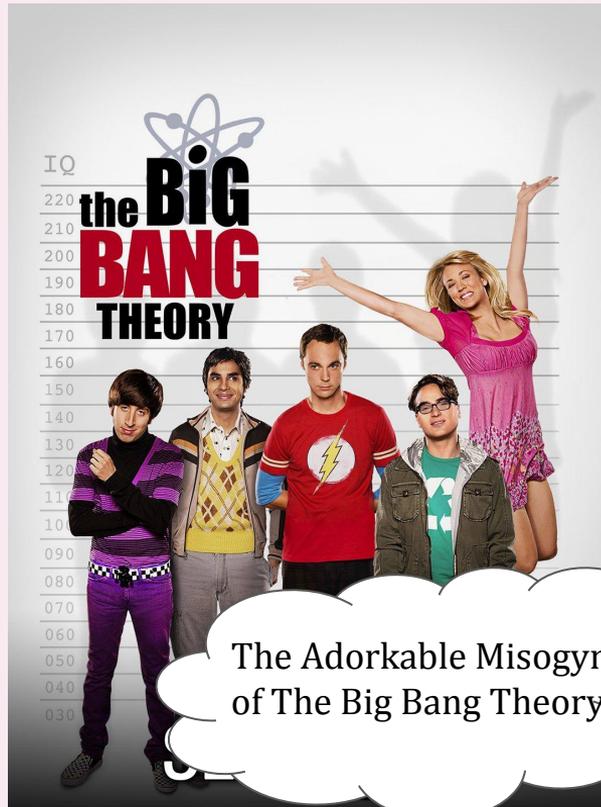
„There are only two females in the history of math, Sofia Kovalevskaya and Emmy Noether: the former wasn't a mathematician, the latter wasn't a woman.“

- Hermann Weyl

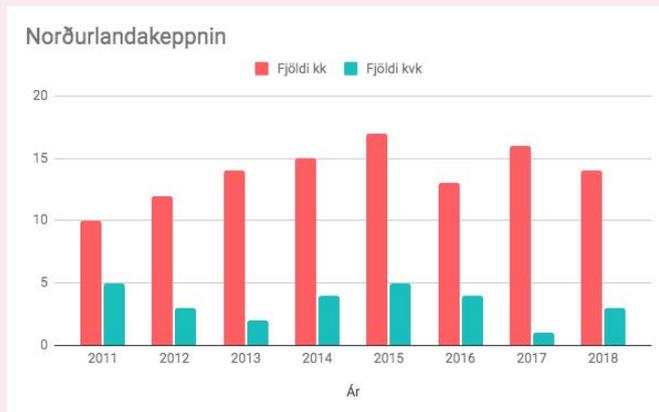
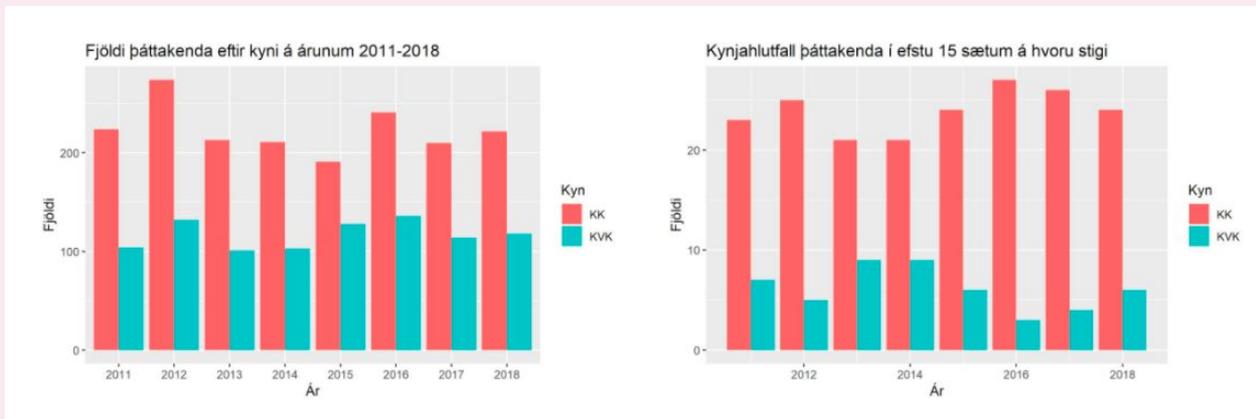
„Statistics are like bikinis. What they reveal is suggestive, but what they conceal is vital.“

- Aaron Levenstein

Women's place and roles within the nerd culture



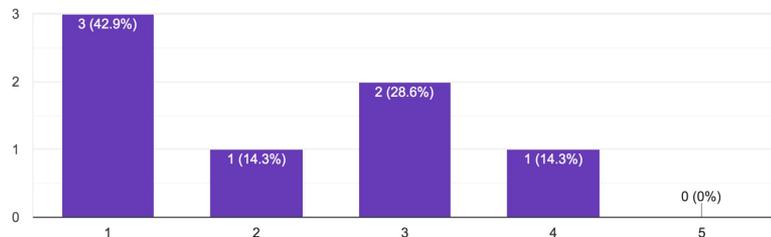
Gender ratio within mathematics in Iceland, high school level



Participants' responses

Ég á vinkonur sem ég get talað við um/deilt áhuga mínum á stærðfræði með

7 responses



Have you participated in the national mathematics competition? If not, why not?

„ No, I was too scared“

„ I was really busy, would've gone otherwise“

„ No, I probably wasn't ready since I only just started high school“

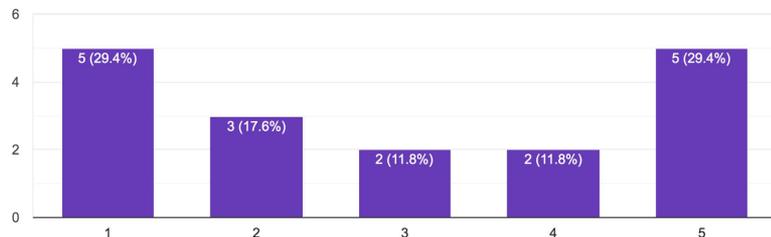
„ No, I'm not confident enough in my mathematics ability“

„ No, I didn't think I was good enough“

„ No, I didn't dare to do it“

Ég á vinkonur sem ég get talað við um/deilt með áhuga mínum á stærðfræði

17 responses



Ideology behind the maths camp

- Thinking Classroom (Peter Liljedahl)
- Reading and Writing the World with Mathematics (Eric Gutstein, Paulo Freire)

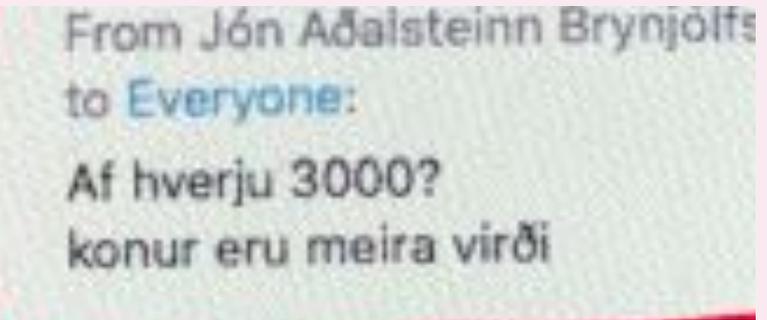


Financial equality

Participation fees are 3.000 isk kr

(around 145 dkk, 225 nok, 220 sek, 20 euro)

- Instruction
- Supplies
- Lunch



From Jón Aðalsteinn Brynjólfs
to Everyone:

Af hverju 3000?

konur eru meira virði

How the math camps are set up! The schedule from summer '21

STELPUR DIFFRA – námsbúðir í stærðfræði 9.-13. ágúst 2021

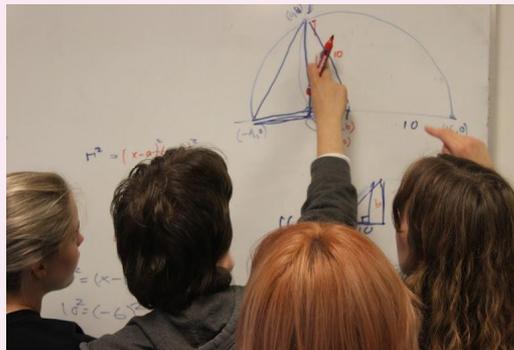
Háskóli Íslands – VR-II – stofa 148

	Mánudagur	Þriðjudagur	Miðvikudagur	Fimmtudagur	Föstudagur
09:00-9:30	Morgunkaffi á meðan þátttakendur mæta í hús	Morgunkaffi	Morgunkaffi - Anna Hrund	Morgunkaffi	Morgunkaffi og fyrirlestur um loddaraliðan (e. imposter syndrome)
09:30-10:00					
10:00-10:30	Kynning á búðunum og könnun lögð fyrir, hópefli	Talningafræði - Hulda Hvönn	Rúmfræði - Álfheiður Edda	Algebra - Íris Teresa	Stærðfræði sem verkfræði til að skoða heiminn
10:30-11:00					
11:00-11:30	Hádegismatur - Subway				
11:30-12:00					
12:00-12:30		Hádegismatur - Lemon	Hádegismatur - Junkyard	Hádegismatur - Mandi	
12:30-13:00					
13:00-13:30	Vinna saman í gamalli stærðfræðikeppni	Algoritmar - Nanna	Listasafnið - Bjarnheiður	Stærðfræði og listir - Jóa	Könnun og π -tsa
13:30-14:00					
14:00-14:30					Bíó!
14:30-15:00					

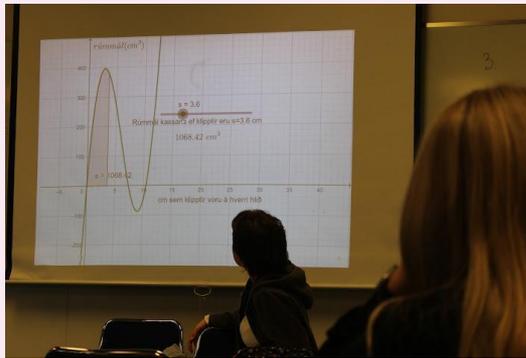
Monday - First day



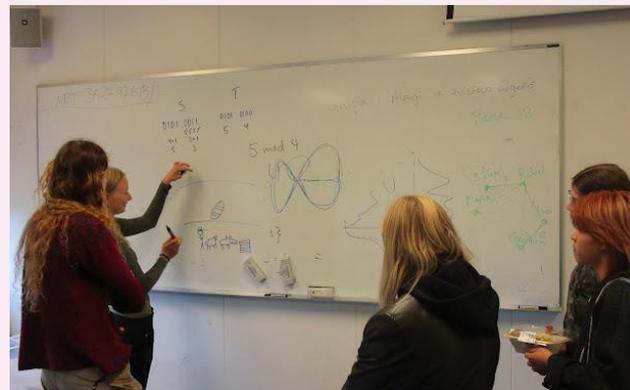
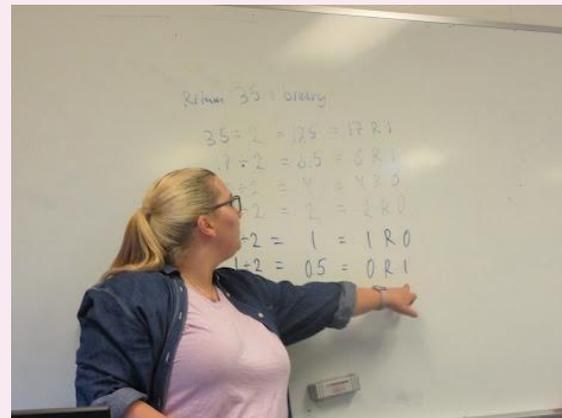
Monday - First day



Monday



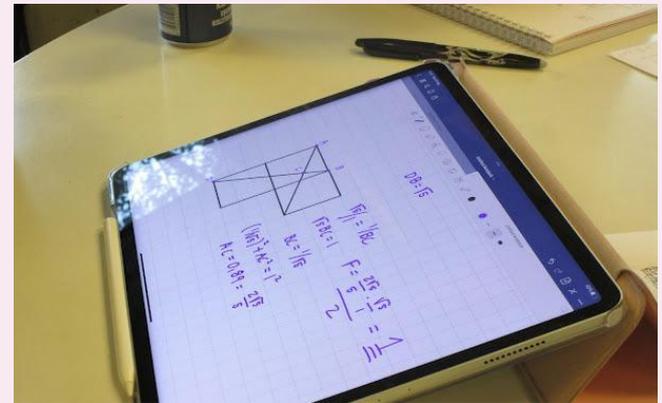
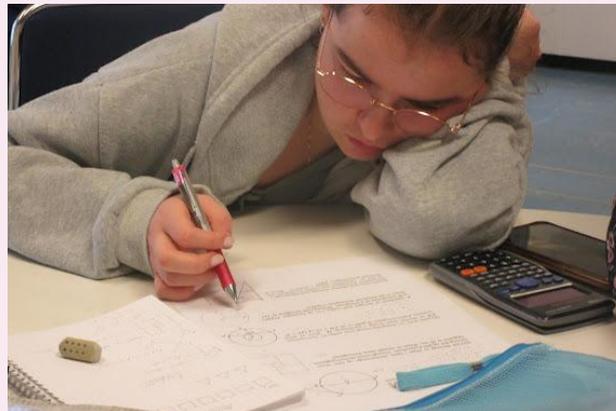
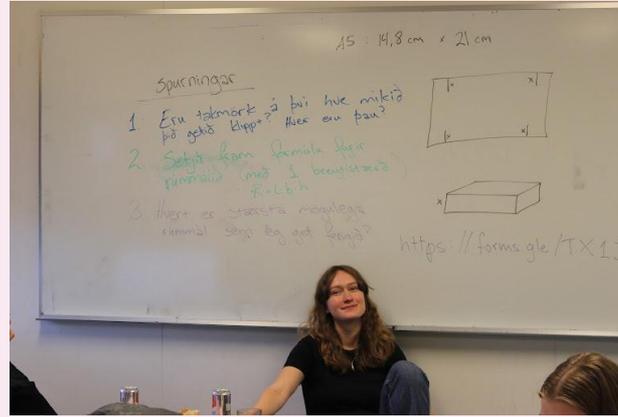
Tuesday - Number theory and (abstract) algebra



Tuesday - Number theory and (abstract) algebra



Wednesday - Geometry and graph theory



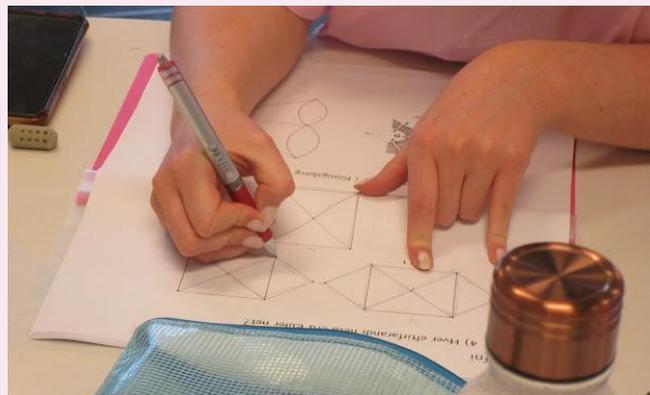
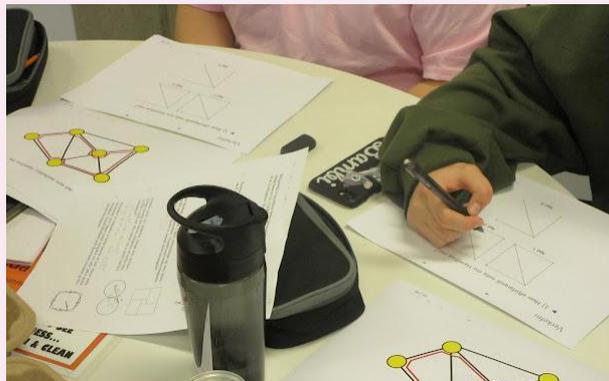
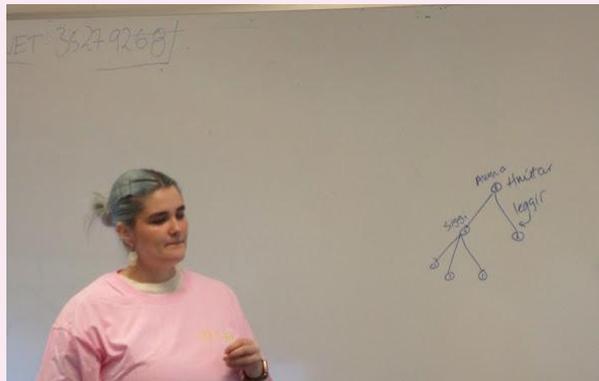
Wednesday - Geometry, graph theory and t-shirts!



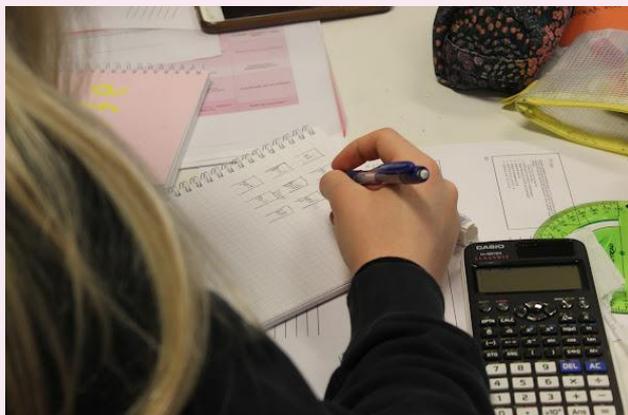
Wednesday - Geometry, graph theory and t-shirts!



Wednesday - Geometry and graph theory



Thursday - Probability and data analysis



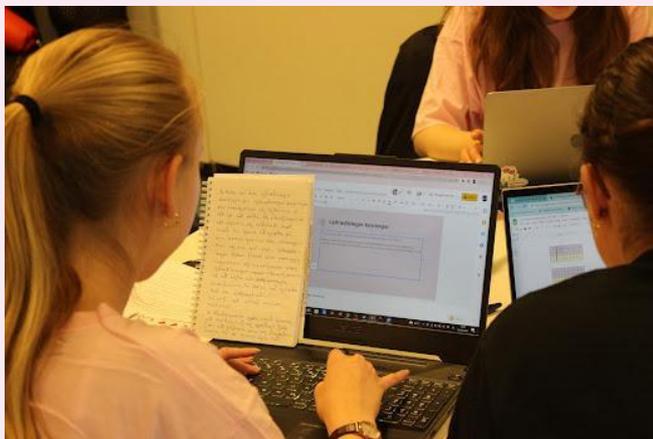
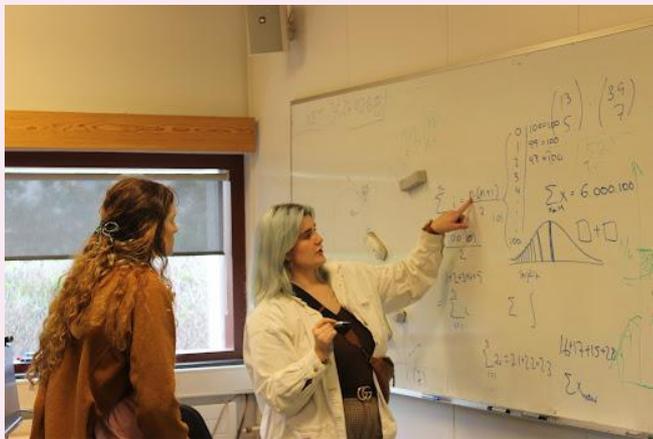
Thursday - Probability, data analysis and a science trip!



Friday - Mathematics and society



Friday - Mathematics and society



Friday - Presentations and coffee ☕



Friday - Presentations and coffee ☕





♡ Physics ♡

Participants' responses

Regarding the material and the teaching:

„ The teaching was amazing :) It was different from what I'm used to which is less attention and individual help“

„ The teachers managed to explain complicated material in a simple accessible and fun way“

„ The teachers seemed more interested and passionate about the material than I am used to“

„ The lessons were really fun, completely different from I am used to at school (can't explain why)“

„ The spirit in the classroom was really different from what I'm used to, there was a lot more of a discussion about the material than in the lessons that I am used to, where we just work, work, work“

„ The teaching was in some regards similar to what I'm used to but I felt more comfortable about asking for help and it felt as if the whole group was helping each other“

Participants' responses

Anything in particular that stood out?

„ How much you can view in the context and in relations with mathematics and how the simplest things can be in some way mathematical “

„ Yes, the project we worked on in groups “

„ I found it really interesting to hear the mathematicians talk, to get a different teacher for every lesson and the food was reeeeeaaally good “

„ The lectures and being surrounded by all these top-tier chicks (girls) “

„ The last day, „ non-traditional learning ““

„ Combinatorics was interesting and geometry was fun but by far the best was hearing the ladies talk about themselves, the different stories and how mathematics has influenced them “

Participants' responses

Finish the sentence „When I solve mathematical task this next coming school year then... :

„I will know that I have the talent needed most of the time “

„I will try not to compare myself to others and focus on learning “

„I'll have more confidence in myself “

„I'll try to understand the material better, but not just learn the procedures and techniques “by heart”. I'm going to try and get my girlfriends to talk about the math problems to understand them better. “

Participants' responses

Is there anything that you will take with you from these math camps?

„ I will take with me more knowledge and understanding about the jobs of mathematicians, and also the different ways that mathematics is all around us, for example in arts and sociology “

„ Yes, I have learned so much that I've never learned in school before. Also, this was just so much fun. I also didn't know that there were so many amazing women in mathematics in Iceland“

„ Mostly I think I will take with me that I have gotten to know all these fun girls, both which go to the same school as I do and those who go to other schools. I will also take with me an increased self-confidence regarding to mathematics “

„ Increased interest in mathematics and a bit clearer idea of what I want to do in the future“

„ Friendships and that I can do a lot more in mathematics than I previously thought“

„ I accidentally stole a pencil “

Post-camp comments from participants

„ Having gone to the math camp has proven to be helpful over the last year. Stelpur diffra showed me how mathematics is used in different fields, disciplines and jobs, and the camp further deepened my interest in mathematics “

„ Stelpur diffra made me want to (and helped me) to learn mathematics in a bigger context and with greater ambitions than to just pass the next test.“

„ I'm ahead of my peers in my current mathematics class because of the material in the math camps and we adopted a freshman from the camps!“

Post summer camps



Any questions?



nanna@stelpurdifra.is
info@stelpurdifra.is