History of Mathematics   Math 629

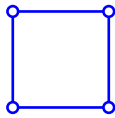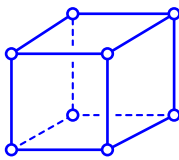Fourteenth Homework: 23 April 2024
Due Monday 29 April 2024.

To hand in: We are using Gradescope for homework submission.

1. [10] Exercise 24.2.1

2. [10] Exercise 24.2.2

3. [10] Exercise 25.5.2

4. [10] Exercise 25.5.4

5. [10] Exercise 25.5.5

6. [20] After building your model of the 4-cube, complete the worksheet (on the next sheet of paper).

7. [20] Write a paragraph about what you we learned from the project.

Cubes Worksheet

d	d-Cube	v	e	f_2	f_3	f_4	f_5	Sum
0	○							
1	○——○							
2	▢							
3	(cube)							
4	[Your Model]							
5	[Your Mind]							
n	[Your Mind]							
d	d-Cube	v	e	f_2	f_3	f_4	f_5	Sum

What is the sum of the face numbers of a d-cube?

What about its face numbers? The second question is hard.

   This is a picture of the Schlegel diagram of the four-dimensional cube. It is different from the model you just made.