

Episode 10

Repetitive throws of a fair die

European section, season 01

Step 1

- Throw the die 10 times and write down the results in a clever way.
- Build a frequency table to show your results, with both absolute and relative frequencies.
- Draw a relative frequency polygon in grey, with unit 2 cm on the x -axis and 10 cm on the y -axis.

Step 2

- Throw the die 100 times and write down the results in a clever way.
- Build a frequency table to show your results, with both absolute and relative frequencies.
- Draw a new relative frequency polygon in black on the same graph as the first one.

Step 3

- Gather the 400 or 500 results in your group in a new frequency table.
- Draw a new relative frequency polygon in **blue** on the same graph as the first ones.

Step 4

- Gather the 1800 or 2000 results in the class in a new frequency table.

Face	1	2	3	4	5	6
Frequency						

- Draw a new relative frequency polygon in **green** on the same graph as the first ones.

Step 5

- Below are the results for a sample of 10 000 throws. Compute the relative frequencies.

Face	1	2	3	4	5	6
Frequency	1752	1655	1664	1639	1674	1616

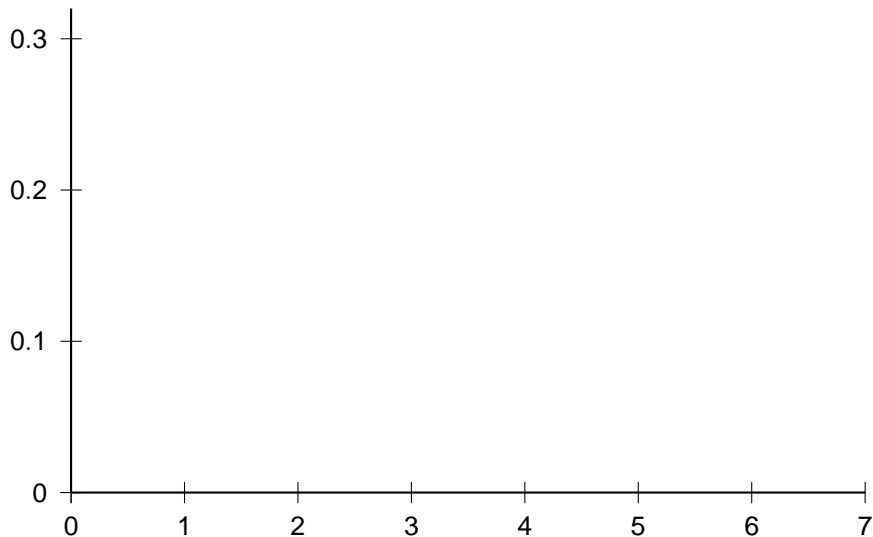
- Draw a new relative frequency polygon in **magenta** on the same graph as the first ones.

- Below are the results for a sample of 50 000 throws. Compute the relative frequencies.

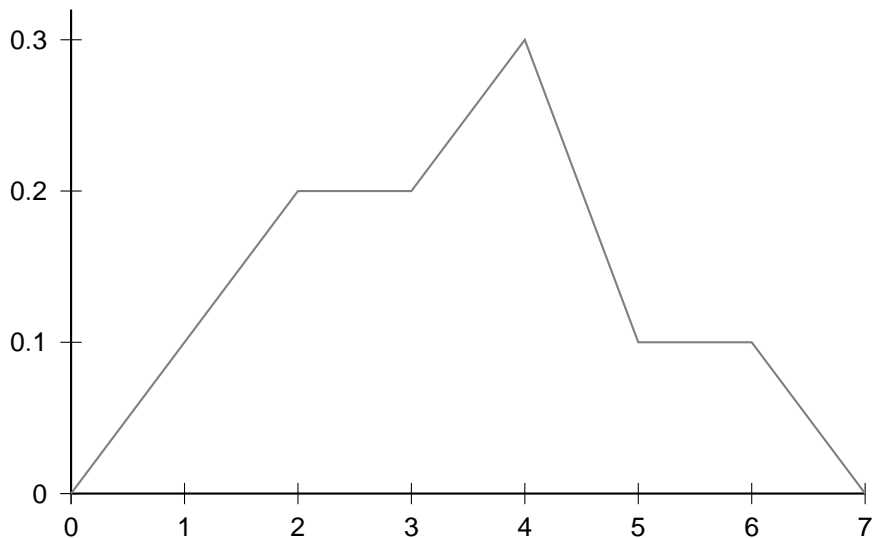
Face	1	2	3	4	5	6
Frequency	8462	8220	8215	8271	8419	8413

- Draw a new relative frequency polygon in **red** on the same graph as the first ones.

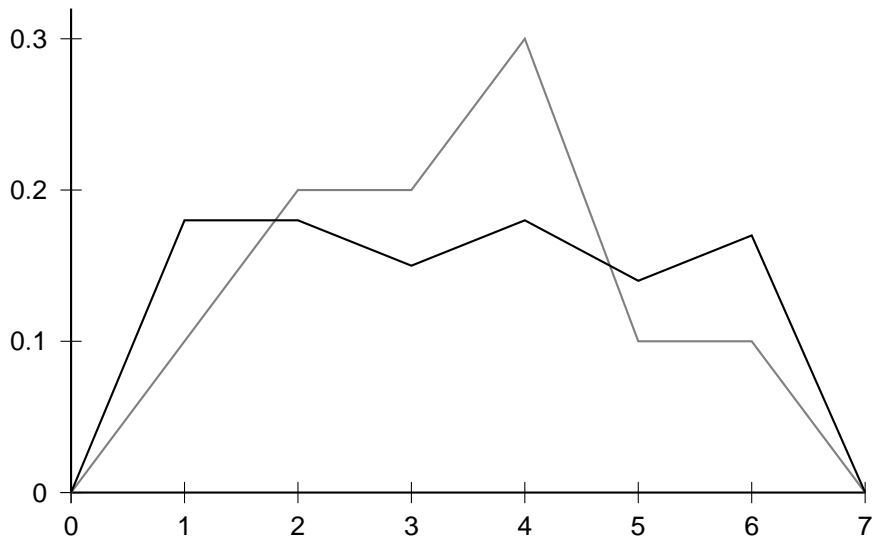
A possible set of graphs



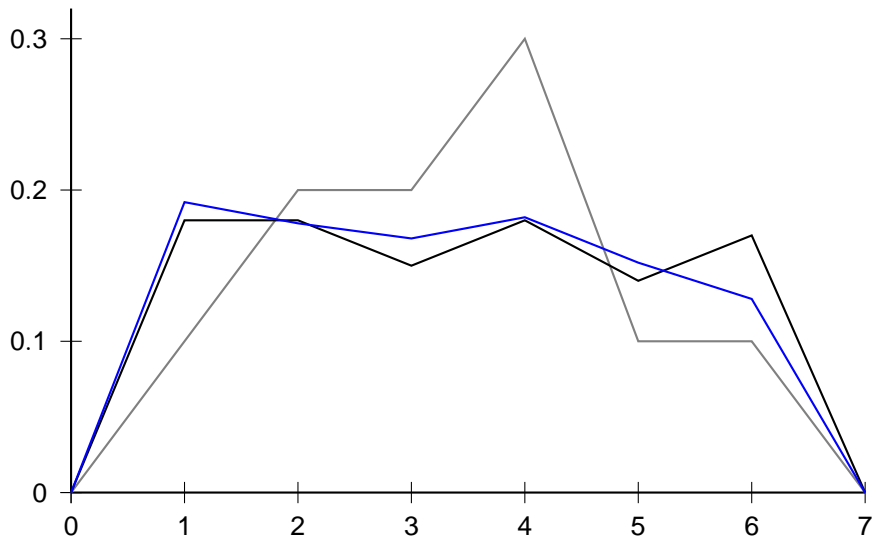
A possible set of graphs



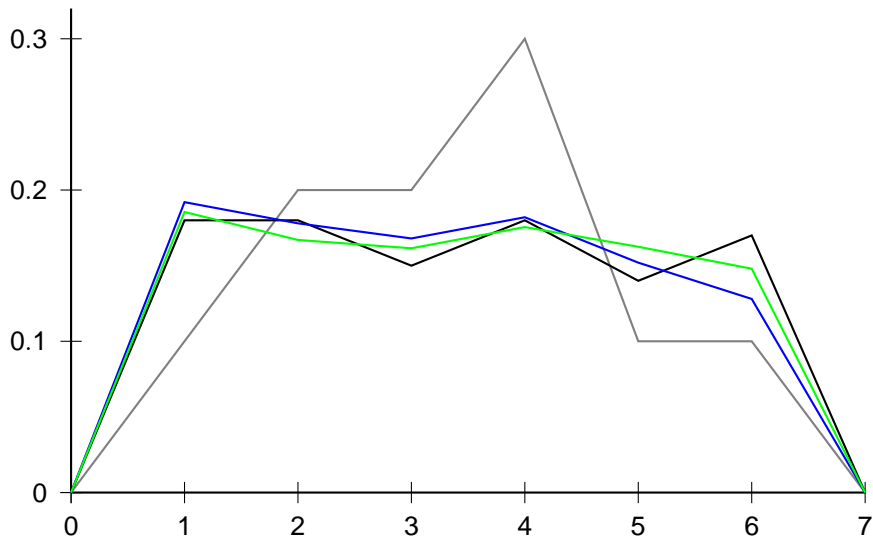
A possible set of graphs



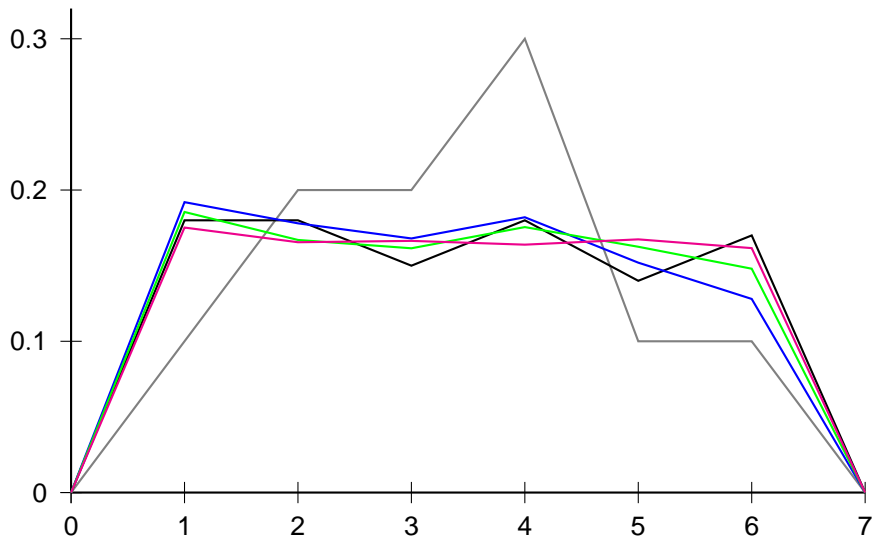
A possible set of graphs



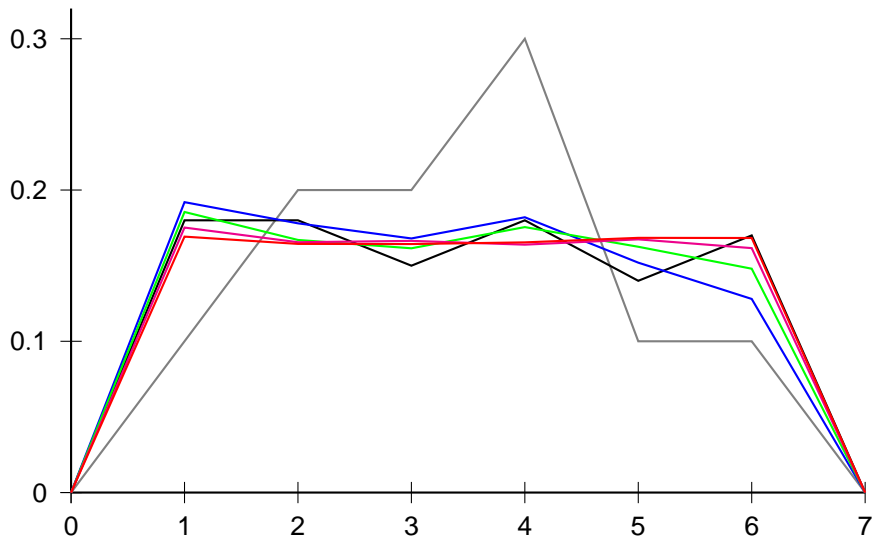
A possible set of graphs



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A possible set of graphs

