Temperature

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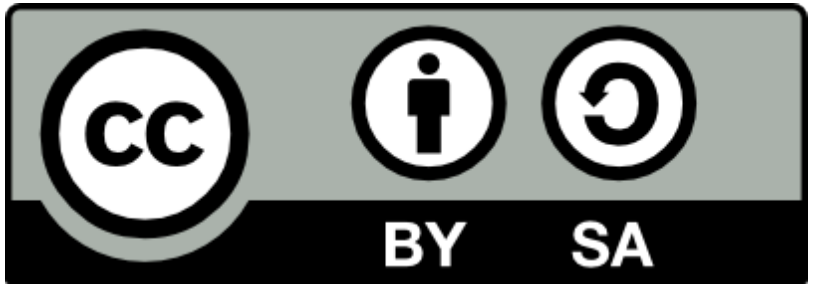

This material is provided by the FunThink team, responsible institution: Ludwigsburg University of Education

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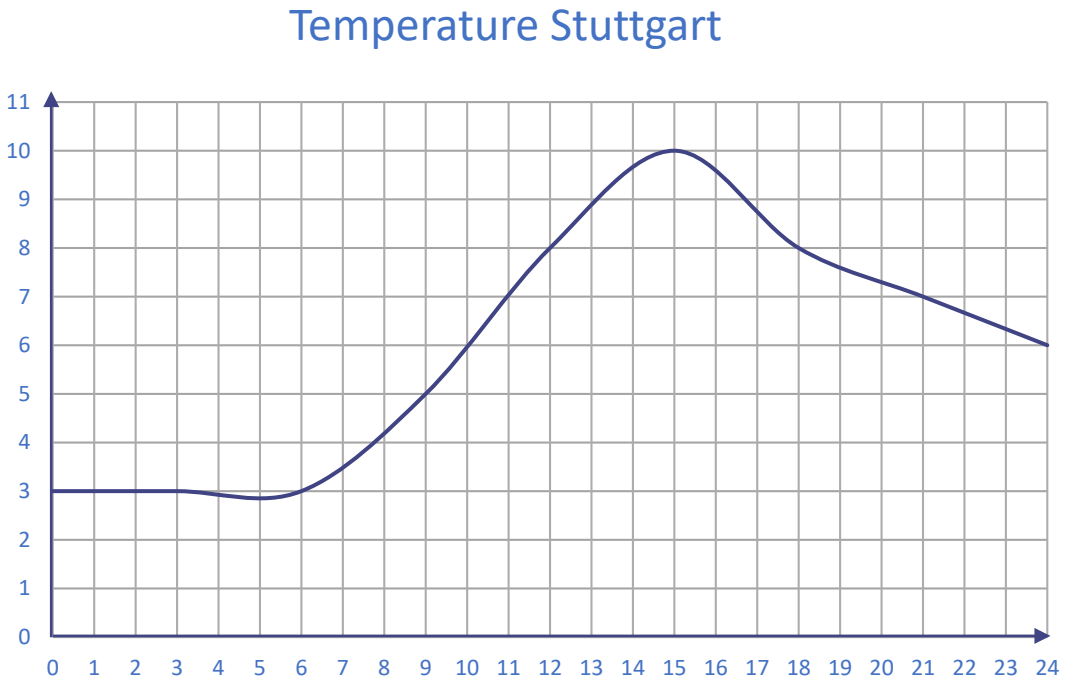
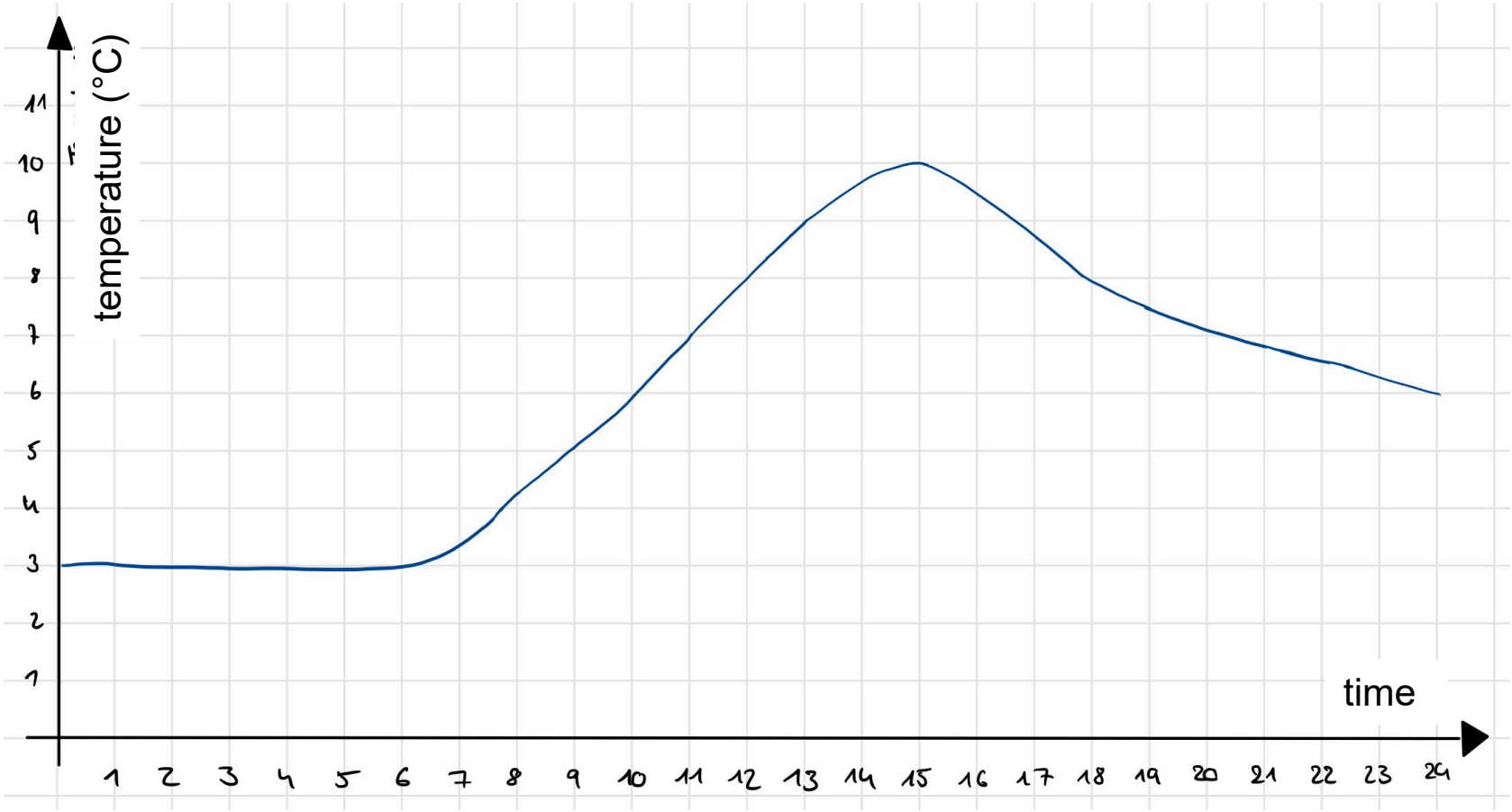
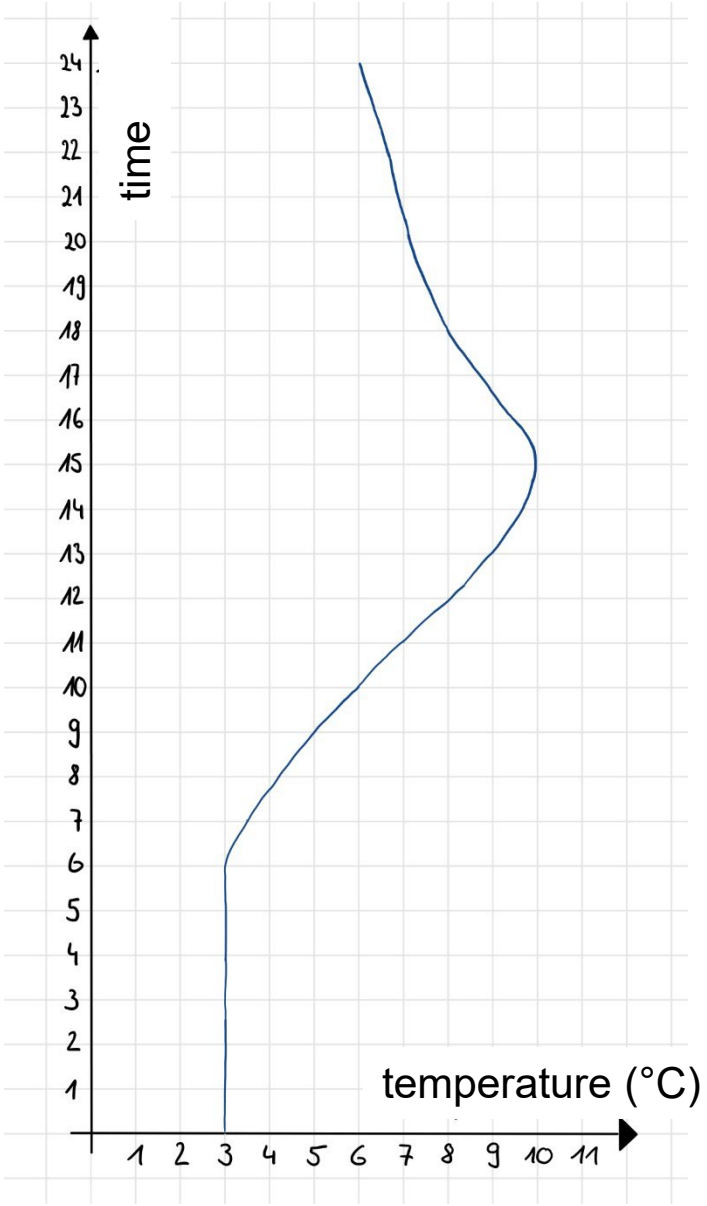
Temperature

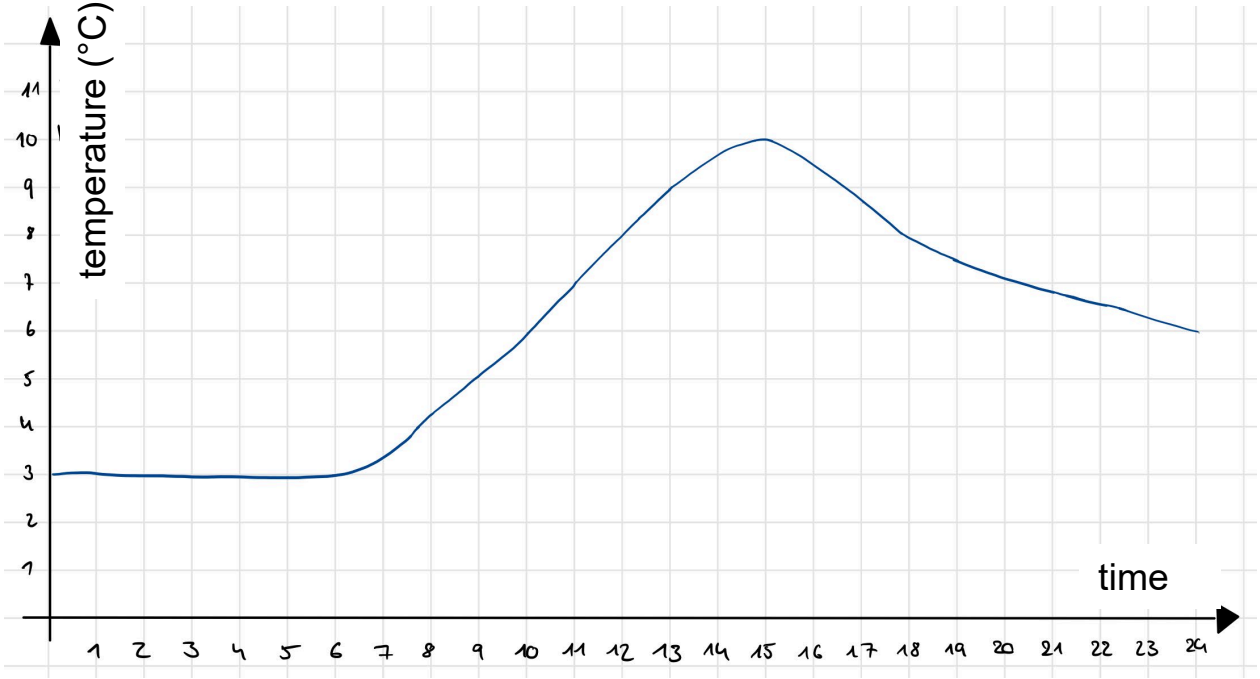


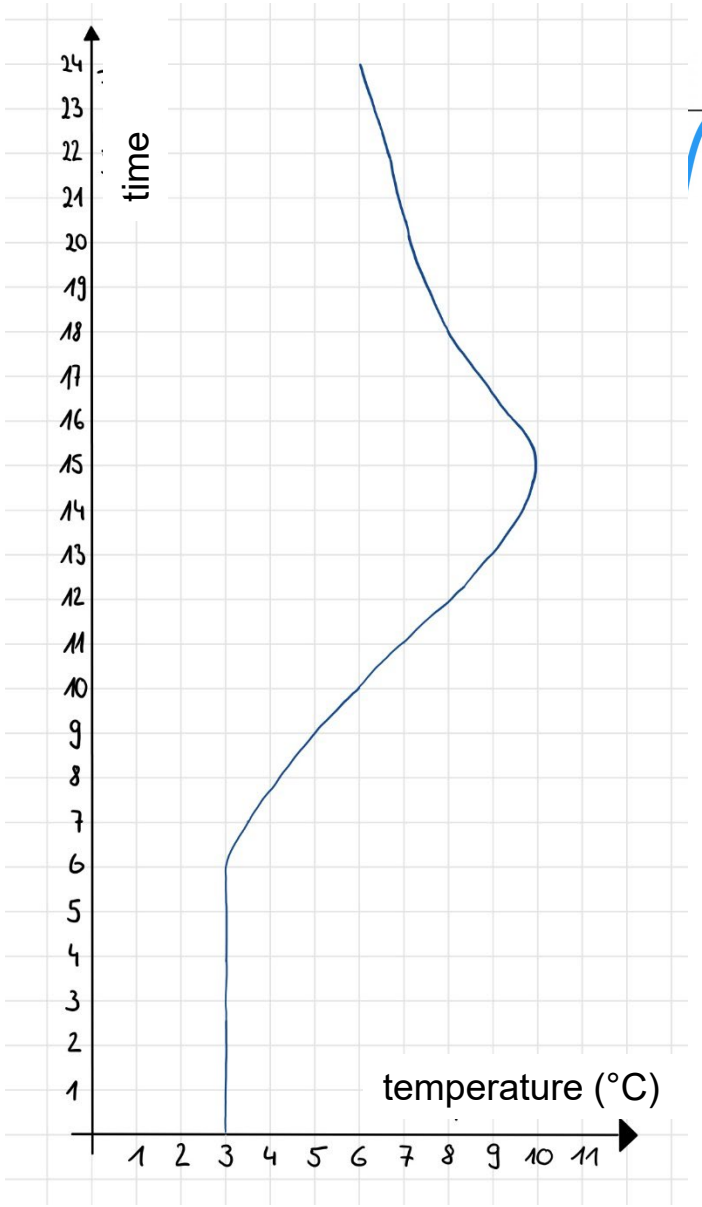
Temperature Stuttgart



Source temperature data: https://www.wetter2.com/europe/germany/baden-wurttemberg/stuttgart?page=past-weather#day=2&month=2 (25.03.2022)


time
24
23
22
21
20
19
18
17
16
15
14
13
12
11
10
9
8
7
6
5
4
3
2
1
temperature (°C)
1 2 3 4 5 6 7 8 9 10 11





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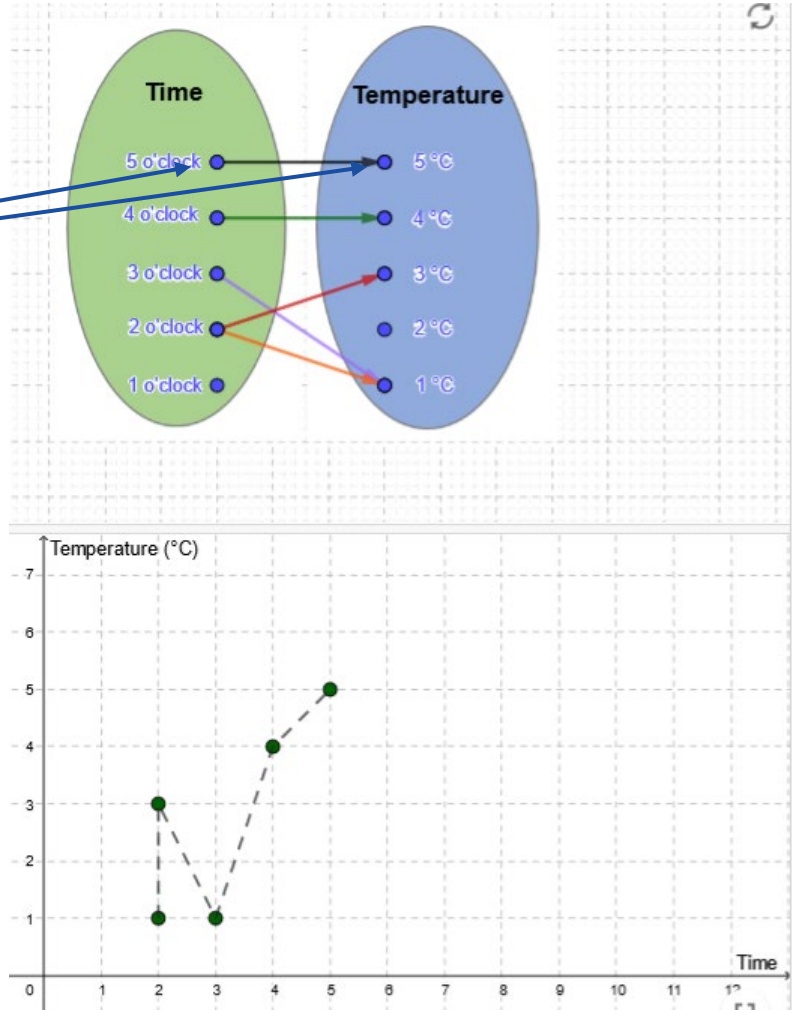
GeoGebra „Temperature“

Complete the research assignment in GeoGebra.

move arrows



Task:

- Scan QR code. This leads you to the GeoGebra applet „Temperature“.
- Complete the research assignments in order and record your findings in your research booklet.

https://www.geogebra.org/m/uka5kz4c

Function as unique mapping

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Funktion as unique mapping

A function is a _____ **mapping**. It assigns each value of the first quantity x (e.g., 3 o'clock) exactly one value of the second quantity y (e.g., 14 °C). Both values (e.g. 3 o'clock and 14 °C) form together an **ordered pair.** The assigned values of the second quantity (e.g., 14 °C) are called **function values.**

Functions can be represented in different ways, e.g.

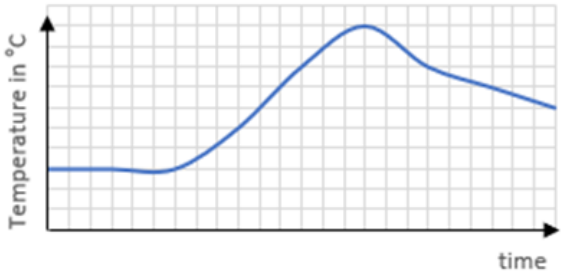
in a **table**

Time	0	1	2	3	4	5	6	7
Temperature in °C	4	4	3	3	3	2	2	4

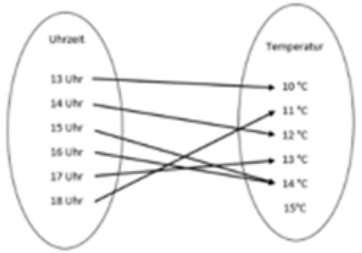
in a **description using words**

"At 15 o'clock it was at its warmest with 14 °C. From 9 o'clock until 12 o'clock, there was the greatest temperature rise of 6 °C. "

in a **graph**



in an **arrow diagram**



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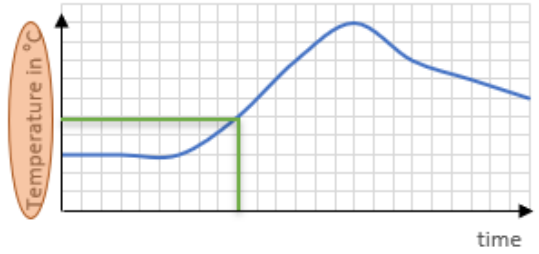
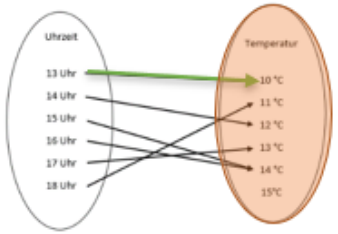


in an **arrow diagram**



Which graph fits better?

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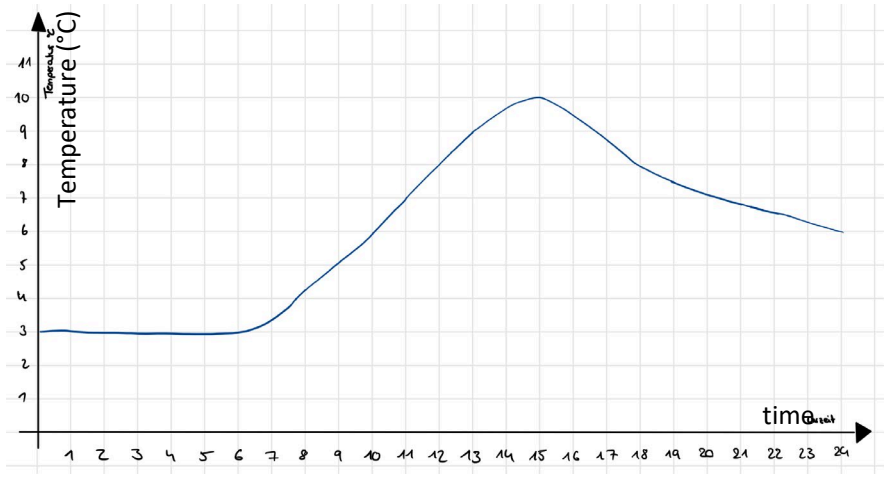
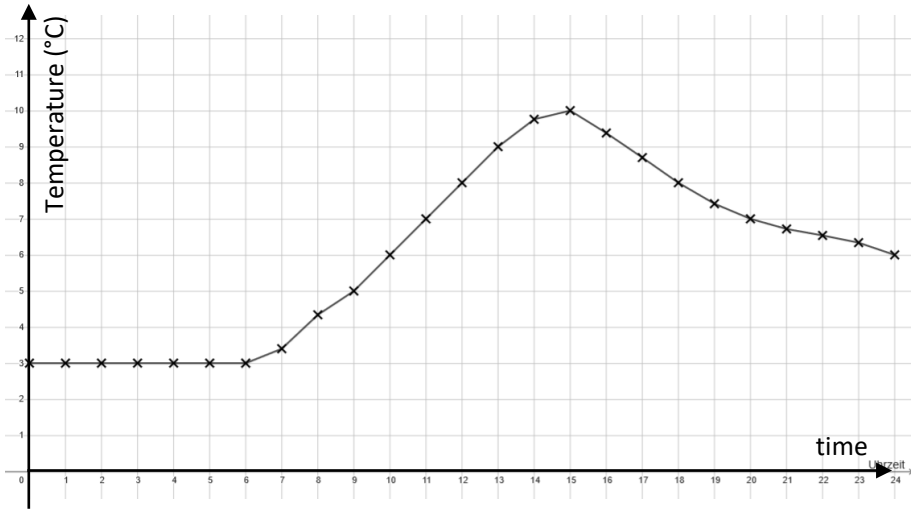
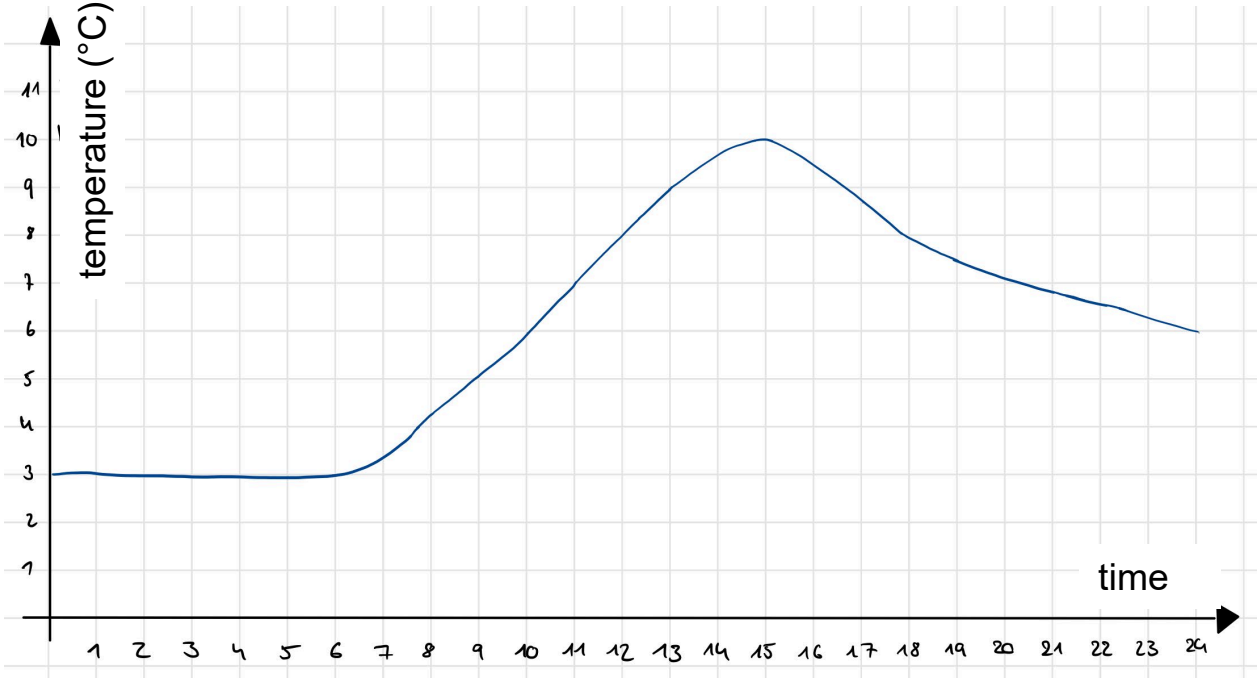


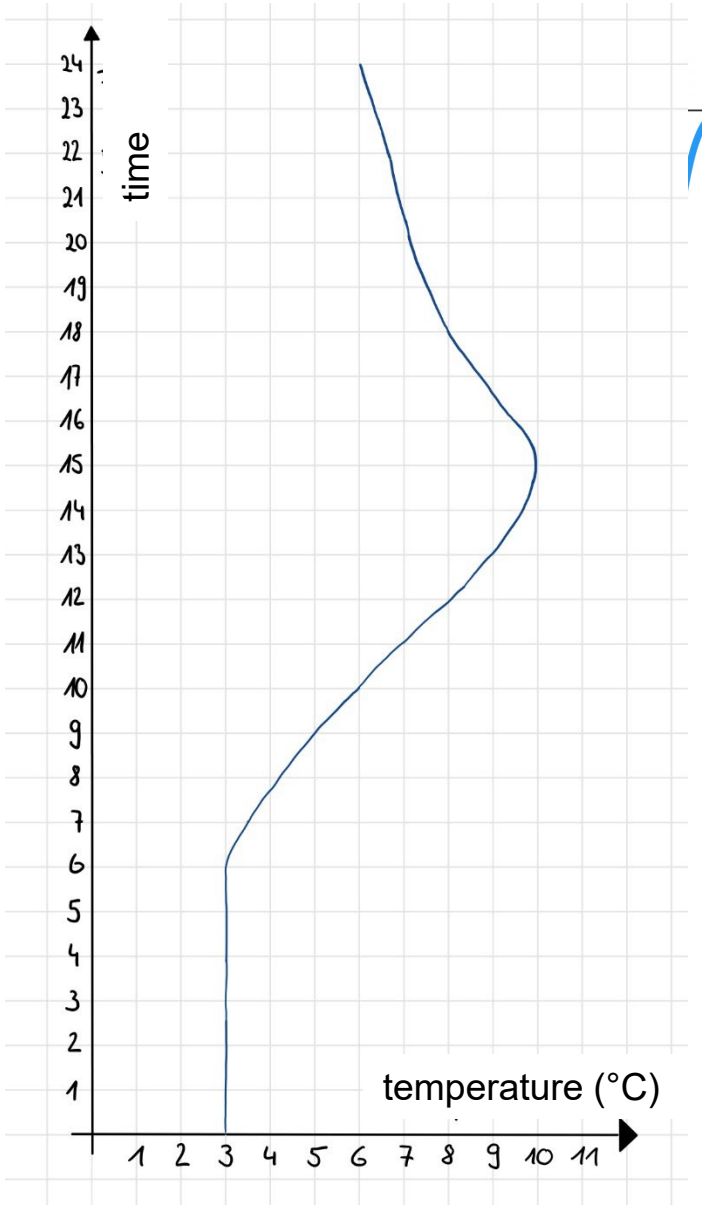
A



B

Which graph is a function?





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Is this mapping unique? Explain!

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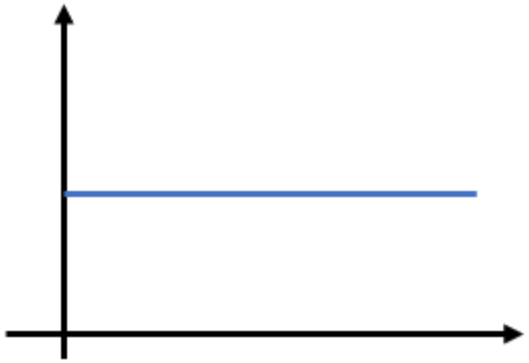

1

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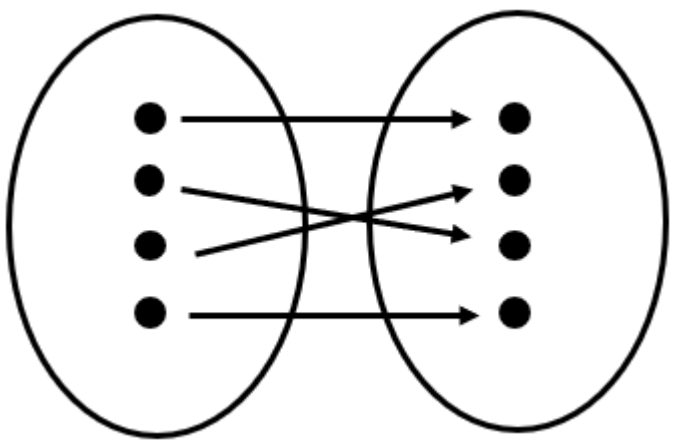
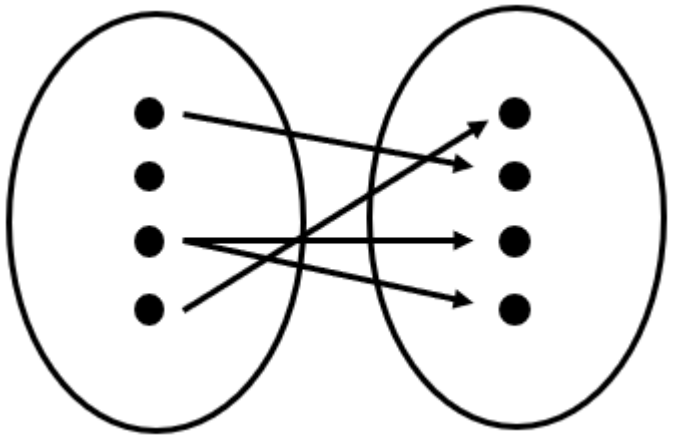


1



2

Is this mapping unique? Explain!

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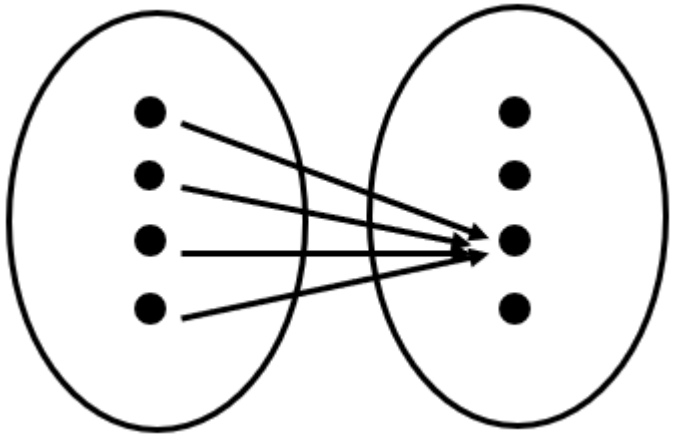
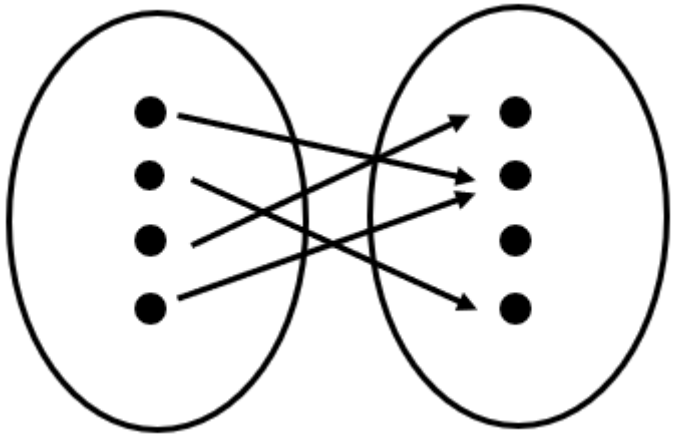


1



2

Is this mapping unique? Explain!

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Situation 1: The number of cucumbers and their price.

Situation 2: The burning time of a candle and the height of a candle.

Situation 3: The distance traveled to school and the time taken.

Situation 4: An English word and its translation into another language.

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