Question 1

The picture shows Tokyo at night. Imagine being at the airport. Where would you go to, if you flew about 3600 km south-west?

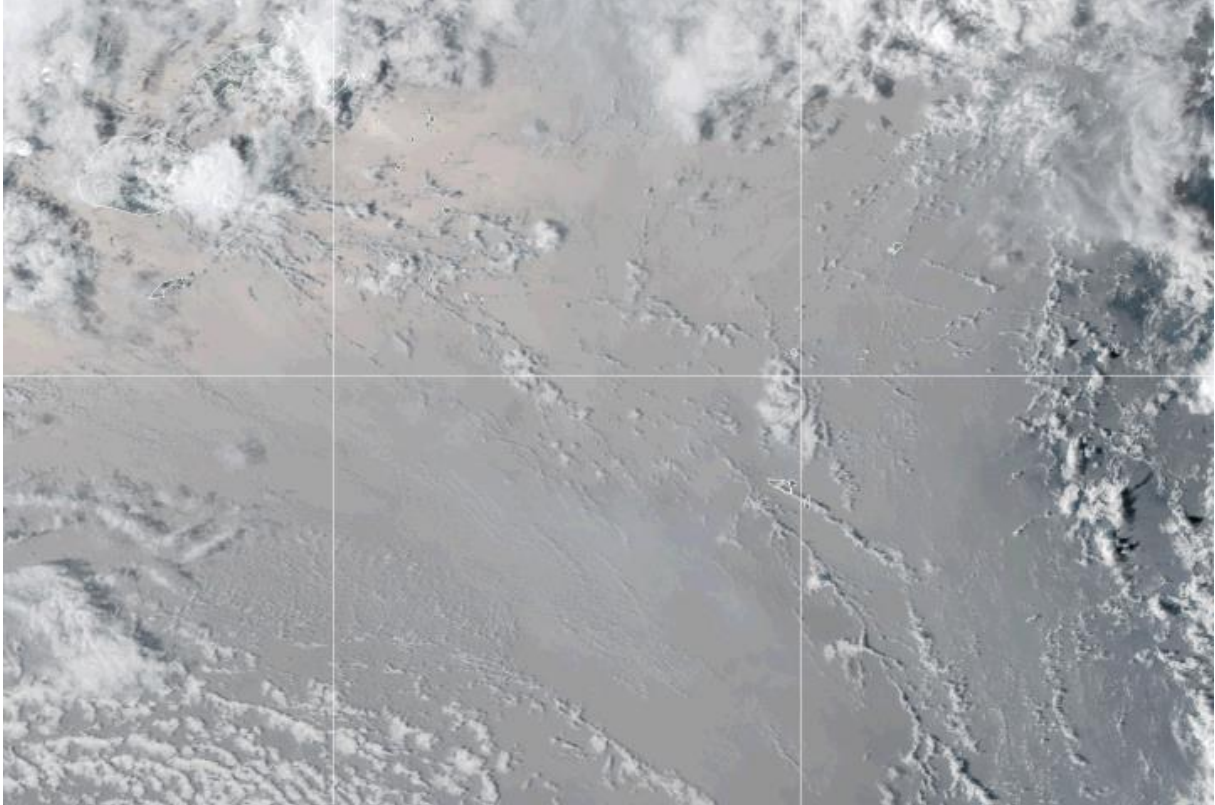Source: https://www.nasa.gov/sites/default/files/thumbnails/image/iss064e038775.jpg

   a) Pjöngjang (North Korea)
   b) Shanghai (China)
   c) Taipeh (Taiwan)
   d) Hanoi (Vietnam)

Question 2

The clip shows an event on a small uninhabited South Pacific island known as Hunga Tonga-Hunga Ha'apai. What kind of damage could be found on the nearby island nation of Tonga?
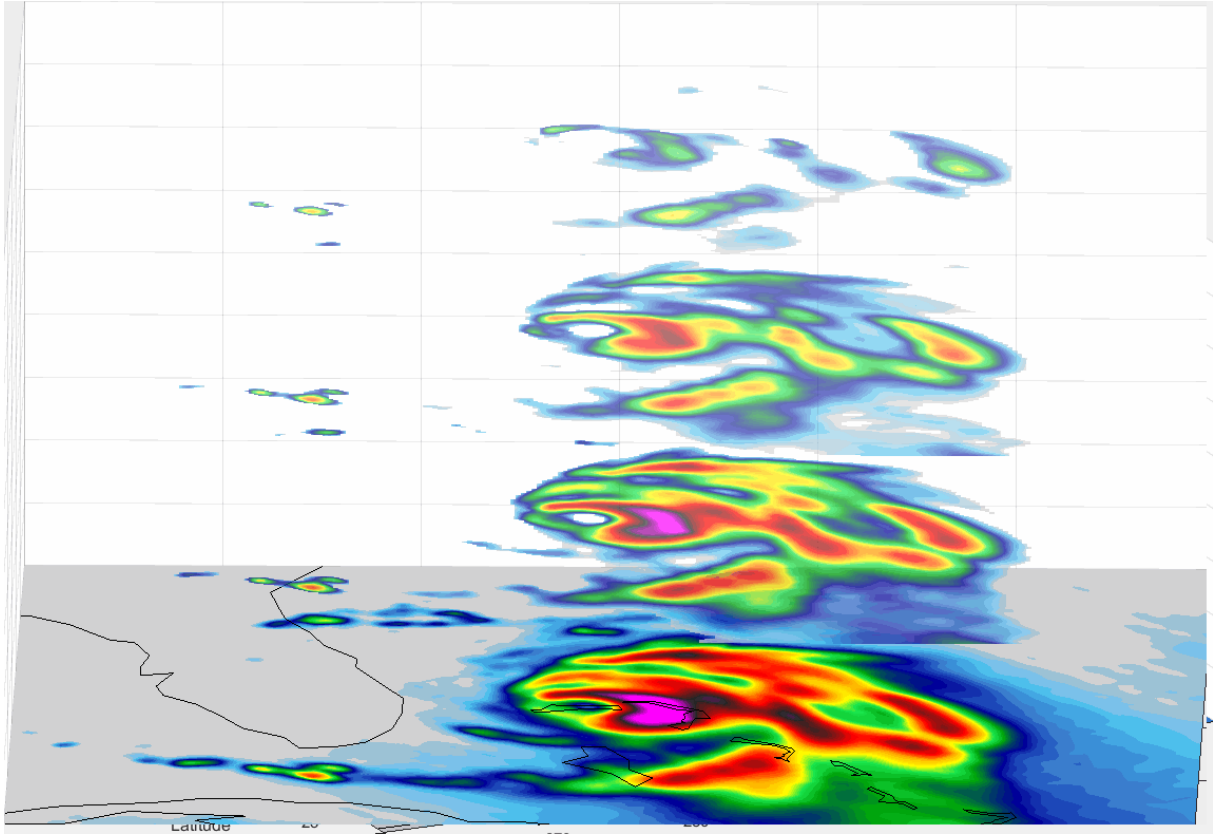

https://eoimages.gsfc.nasa.gov/images/imagerecords/149000/149347/tonga_goes_2022015.gif

    a) significant tsunami waves
    b) high radioactive contamination
    c) landslides due to heavy rain
    d) heavy air pollution due to Sahara dust

Question 3

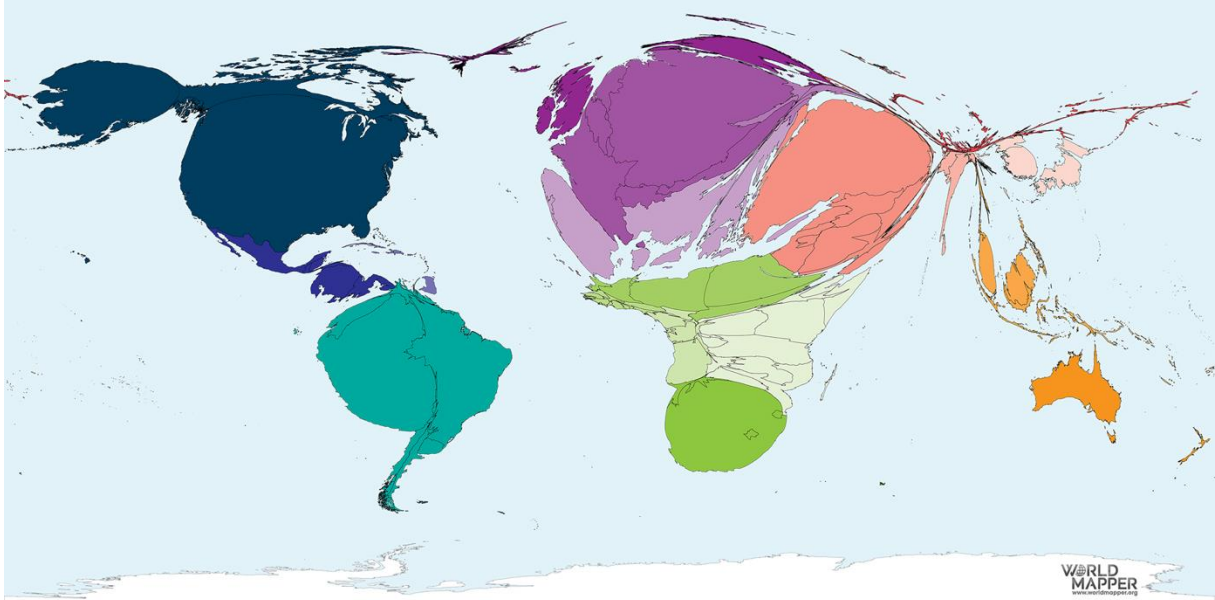The clip below shows Hurricane Dorian off the coast of Florida on September 3, 2019. Which statement is false?

Source:
https://www.nasa.gov/sites/default/files/thumbnails/image/tempest_dorian_portal.gif

    a) the vertical view of Dorian highlights where the storm is strongest in the atmosphere
    b) the colors in the animation show the heavy rainfall and moisture inside the storm
    c) the least-intense rainfalls are shown in red
    d) the storm shows a rotation typical for him

Question 4

What could be the title of the map shown below?

Source: https://worldmapper.org/maps/asylum-seeker-destinations-2018/?sf_action=get_data&sf_data=results&_sft_product_cat=wellbeing,migration

a) Asylum-seeker destinations 2018
b) Obese Children 2018
c) asylum-seeker origins 2018
d) Adults with Diabetes 2018

Question 5

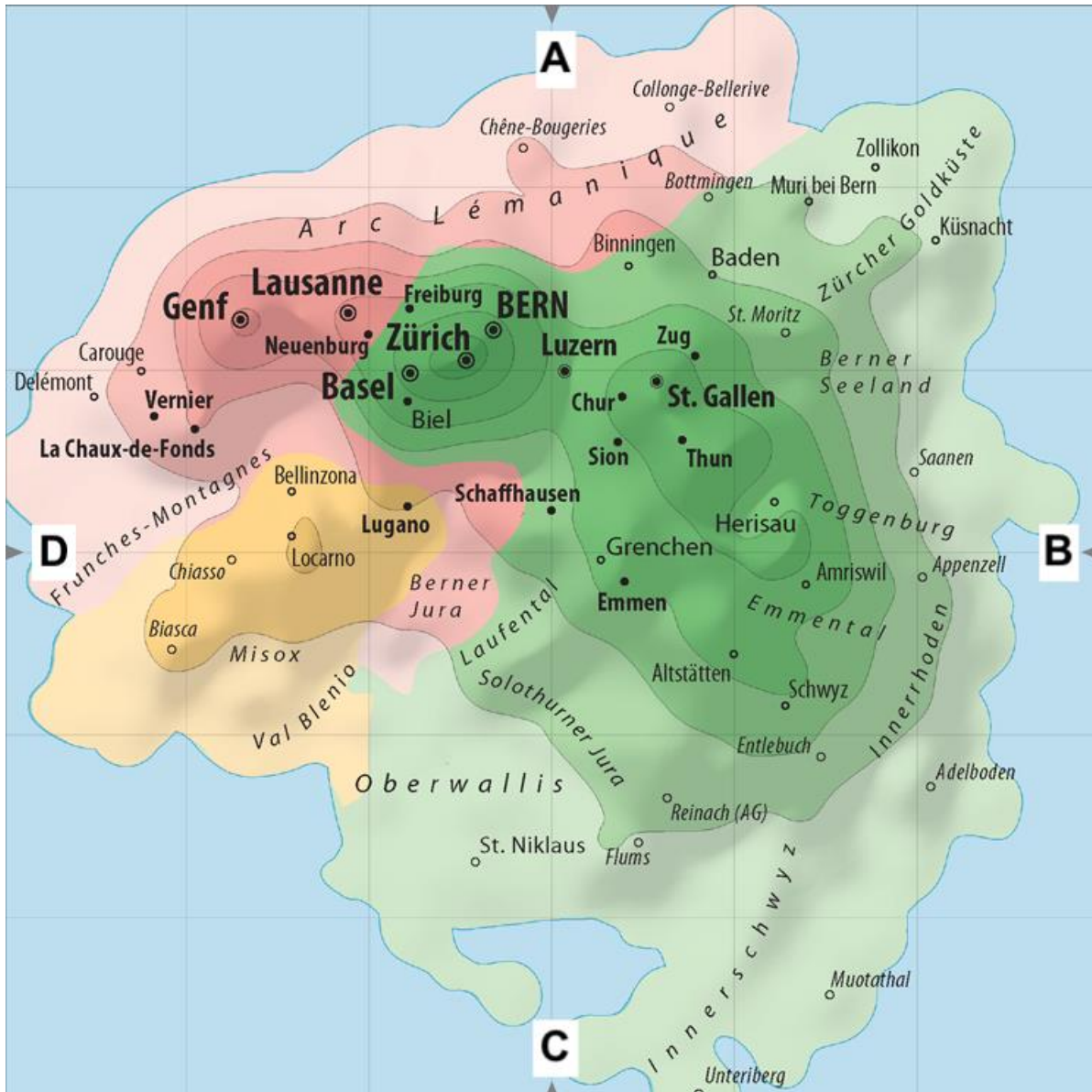What language do the inhabitants of these houses probably speak?

Source:

a) Spanish
b) Arabic
c) Kyrgiz
d) French

Question 6

The following map shows the political landscape of Switzerland. It was designed by Michael Hermann, a swiss geographer and political analyst. The cities and towns of Switzerland are arranged according to their political orientation/alignment (right-wing, left-wing, conservative, liberal). Which alignment fits to the letters A, B, C and D?
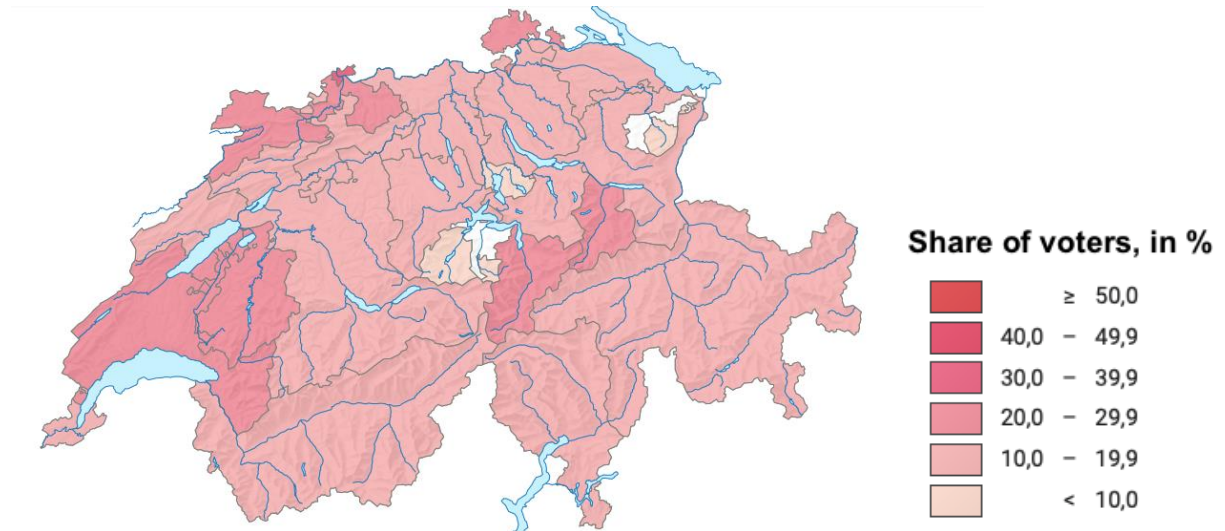

Source: Michael Hermann.

A) A = liberal, B = left-wing, C = conservative, D = right-wing
B) A = left-wing, B = conservative, C = right-wing, D = liberal
C) A = conservative, B = right-wing, C = liberal, D = left-wing
D) A = liberal, B = right-wing, C = conservative, D = left-wing

Question 7

The following map shows the party strength of one swiss party at the elections of the National Council in 2019. Which one?
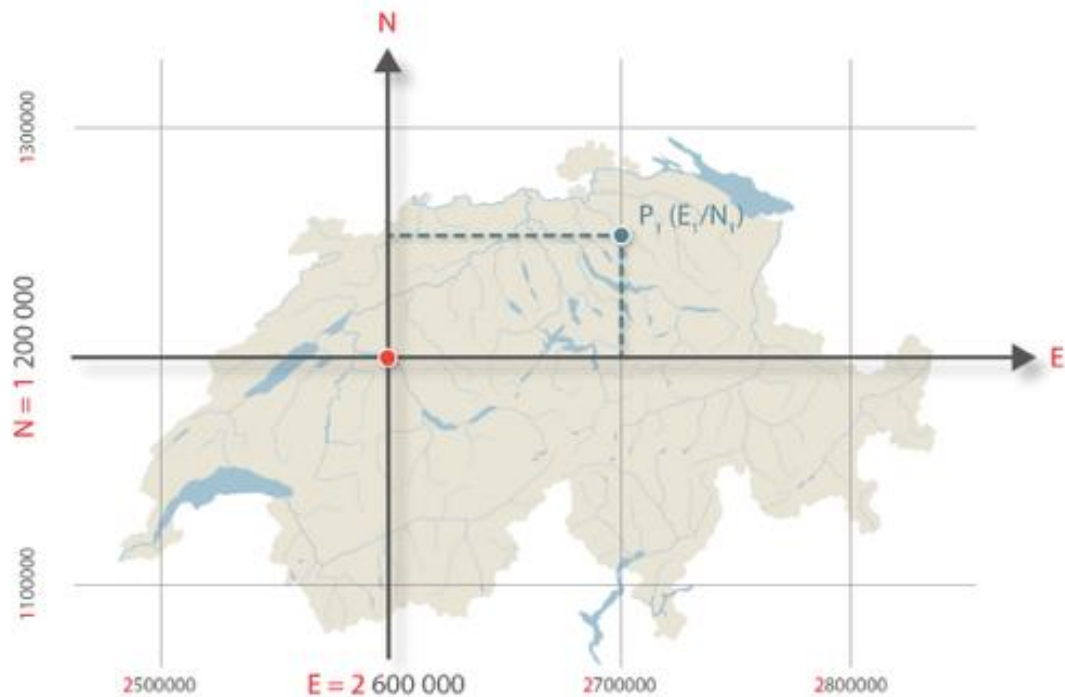

Share of voters, in %

	≥ 50,0
	40,0 – 49,9
	30,0 – 39,9
	20,0 – 29,9
	10,0 – 19,9
	< 10,0

Source: Federal Statistical Office.

A) Die Liberalen (FDP) / PLR.Les Libéraux-Radicaux (PLR) / PLR.I liberali radicali (PLR)
B) Schweizerische Volkspartei (SVP) / Union démocratique du centre (UDC) / Unione democratica di centro (UDC)
C) Sozialdemokratische Partei (SP) / Parti socialiste (PS) / Partito socialista (PS)
D) Christlichdemokratische Partei (CVP) / Parti democrate-chrétien (PDC) / Partito popolare democratico (PPD)

Question 8

The coordinates of the Swiss survey system LV95 has 7 digits in east-west direction and 7 in north-south direction. The fundamental point is based near Bern and has the coordinate E 2 600 000 and N 1 200 000. The following image shows the function of the coordinate system. Which coordinates has the train station of Lugano?
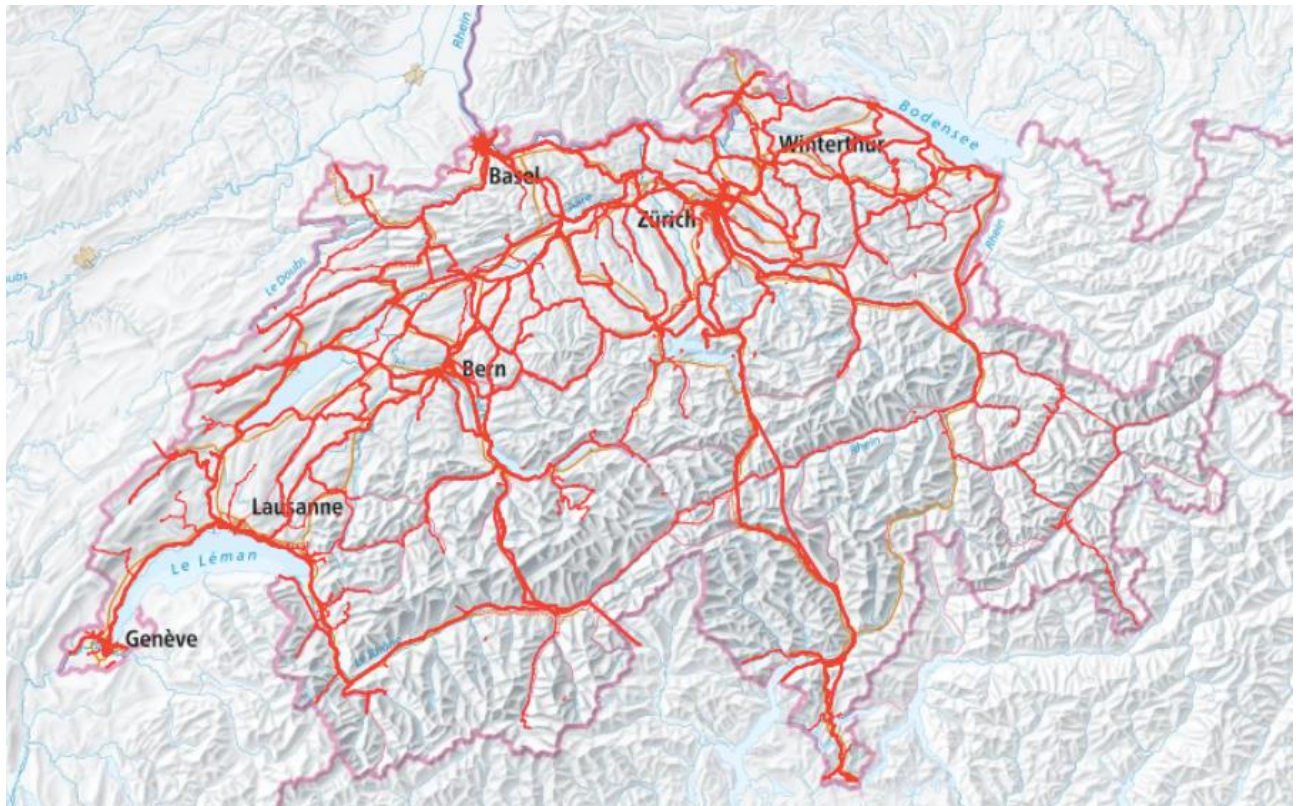

Source: swisstopo.

A) E 2'716'801 / N 1'205'988
B) E 2'716'801 / N 1'095'988
C) E 2'616'801 / N 1'095'988
D) E 2'590'801 / N 1'205'000

Question 9

What is shown in the following map?

Source: map.geo.admin.ch

A) Train network
B) High-speed internet network
C) Bicycle network
D) Axis of national routes

Question 10

This picture was taken by the satellite DSCOVR. Which astronomical situation can be observed from Earth?

Full moon
Crescent moon
New moon
Lunar eclipse

Question 11

What is the cause for the jagged edges of this lake?

Artificial flooding
Demolished edges due to heavy precipitation
Sand blown on the lake by strong winds
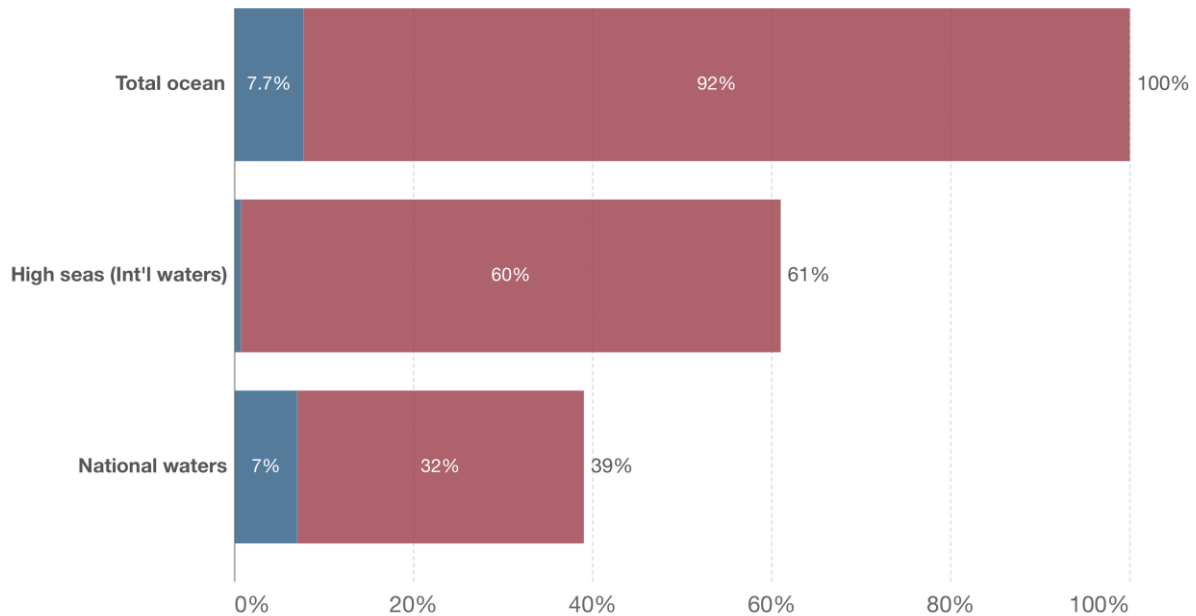Erosion due to water movement

Question 12

Share of ocean area that is protected, 2021

Marine protected areas are areas that have been reserved by law or other effective means to protect part or all of the enclosed environment.

Our World in Data

https://ourworldindata.org/fish-and-overfishing#marine-protected-areas

Which statement is FALSE?

1% of the total ocean are protected international waters
The unprotected ocean area is 12 times bigger than the protected ocean area
The protected ocean area in national waters is 7 times bigger than the protected area in international waters
7% of the national waters are protected
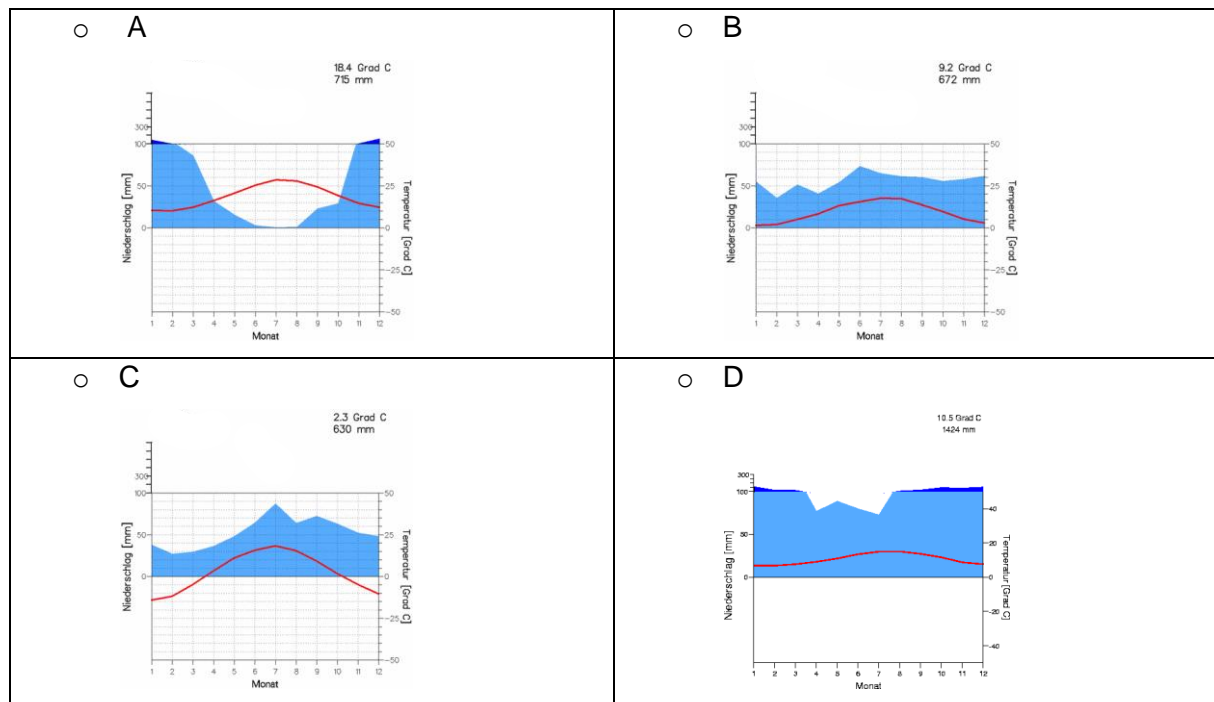
Question 13

In which direction is the man in the foreground heading approximately?

NW
SW
SE
NE

Question 14

o A	o B
18.4 Grad C 715 mm	9.2 Grad C 672 mm
o C	o D
2.3 Grad C 630 mm	10.5 Grad C 1424 mm

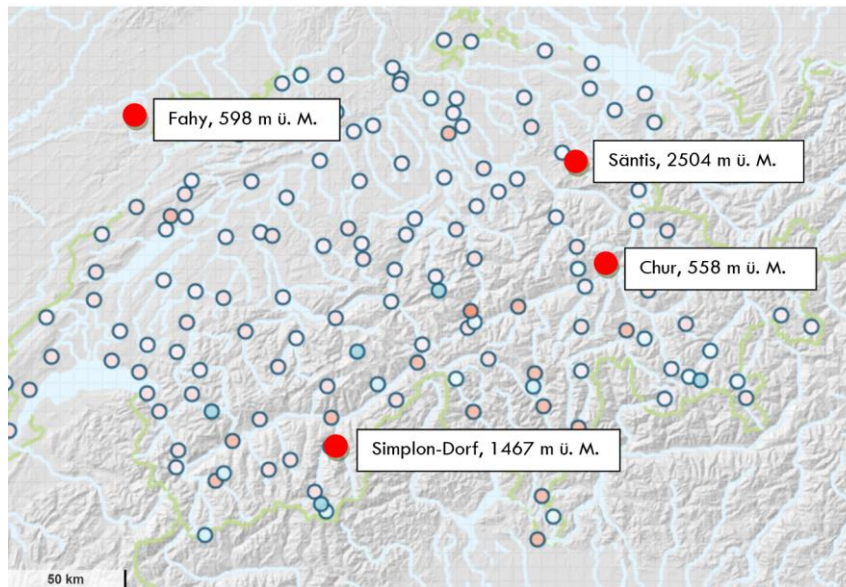Quelle: https://www.klimadiagramme.de/

Which of the climate diagrams shows the least continentality?

A

B

C

D

Question 15

On average, which of the four weather stations measures the lowest air pressure?

Quelle: https://tinyurl.com/2pmremth

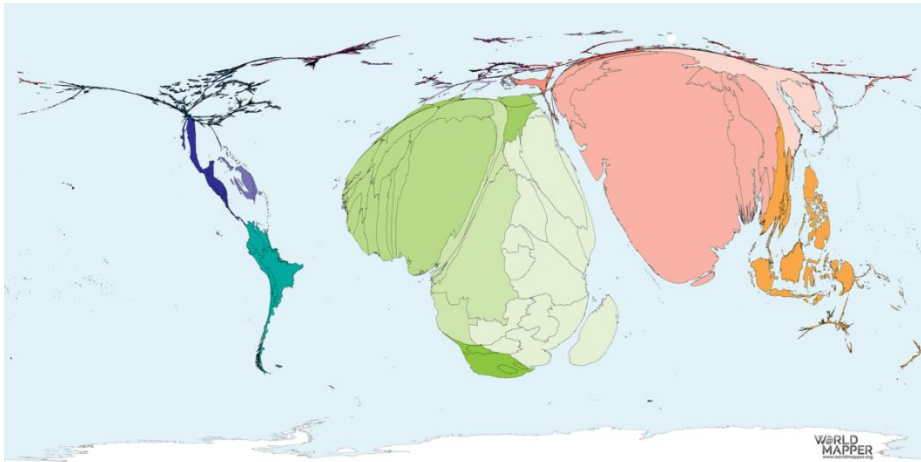- o Fahy
- o **Säntis**
- o Chur
- o Simplon-Dorf

Question 16

Which contour image corresponds to the three-dimensional image on the left?
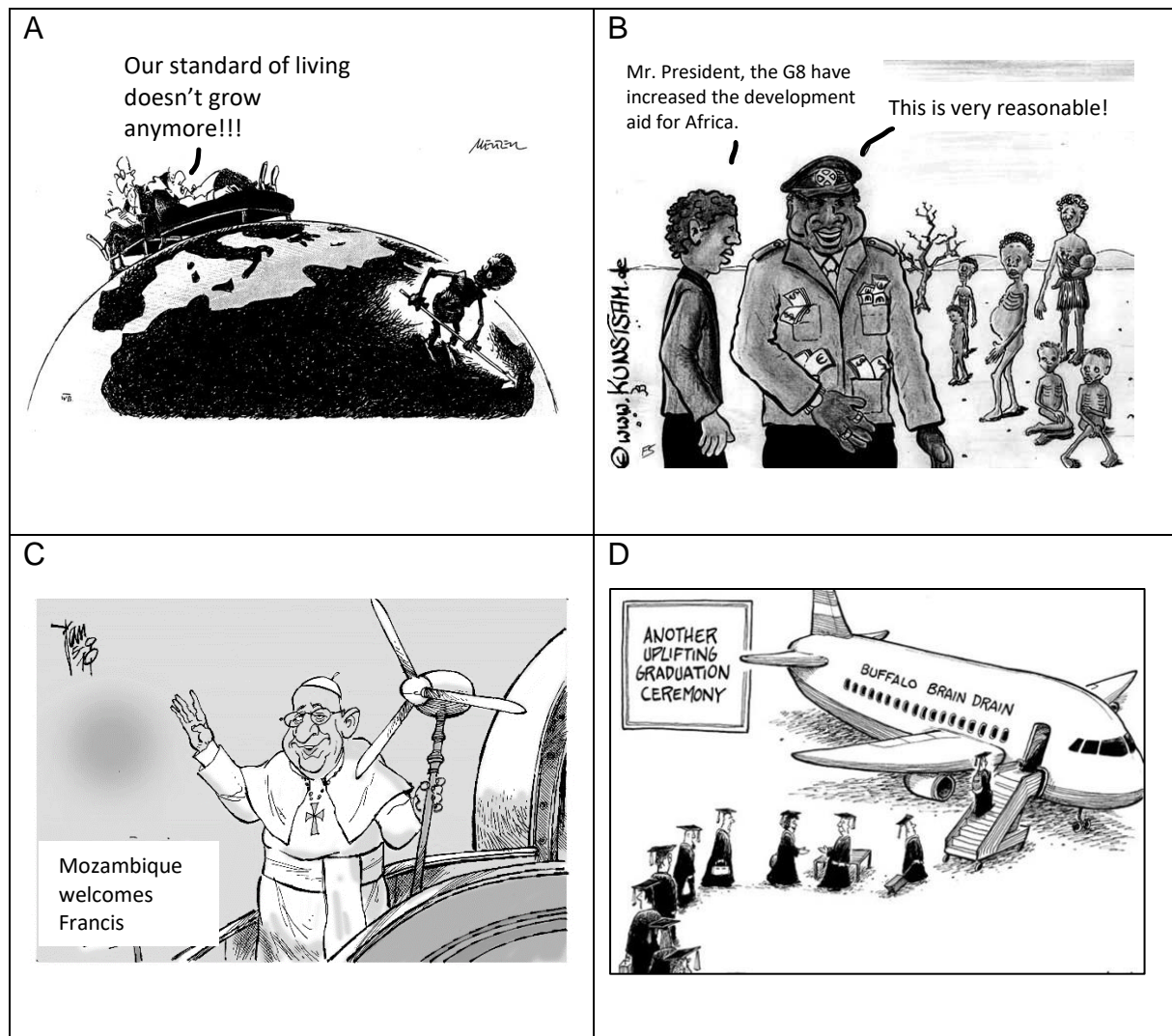
A
B
C
D

Question 17

What does this map show?

Quelle: https://tinyurl.com/bdfxpx34

- ○ **Absolute poverty**
- ○ multidimensional poverty
- ○ Unemployment rate
- ○ Migration figures

Question 18

Sources : https://tinyurl.com/2n2nkuda, https://tinyurl.com/4jeahnkn, https://tinyurl.com/57bxhfjn, https://tinyurl.com/ytc3swau
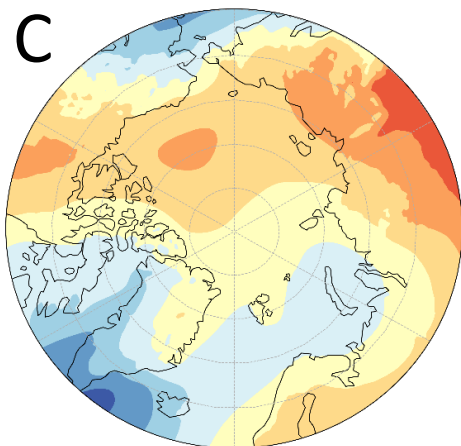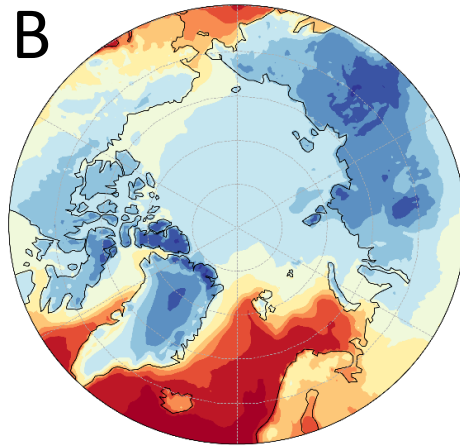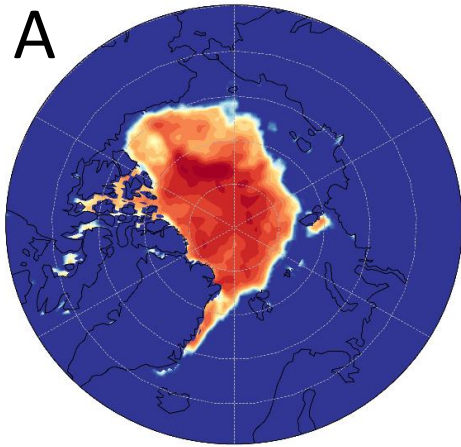
Which of the following pictures does not show a cause of poverty in developing countries?

A

B

C

D

Question 19

Assign the maps to their correct description, if red colors mean high values and blue colors low values.

A: Mean Sea Ice Extent during the Summer of 2003
B: Mean Temperature during the Winter of 2003
C: Sea level Pressure during a typical day in Winter
D: Mean Sea Ice Extent During the Summers from 1979-2020

A: Sea level Pressure during a typical day in Winter
B: Mean Sea Ice Extent During the Summers from 1979-2020
C: Mean Sea Ice extent during the Summer of 2003
D: Mean Temperature during the Winter of 2003

A: Mean Sea Ice Extent During the Summers from 1979-2020
B: Sea level Pressure during a typical day in Winter
C: Mean Temperature during the Winter of 2003
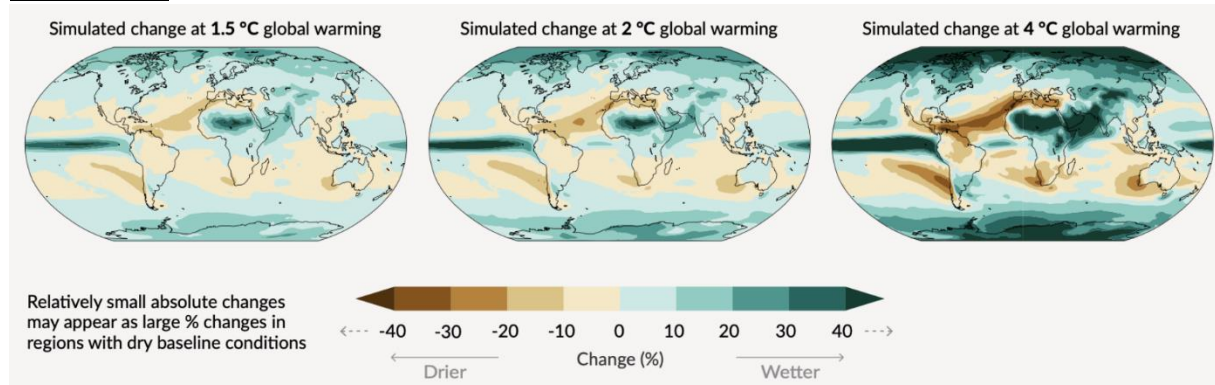D: Mean Sea Ice extent during the Summer of 2003

A: Mean Sea Ice Extent During the Summers from 1979-2020
B: Mean Sea Ice extent during the Summer of 2003
C: Mean Temperature during the Winter of 2003
D: Sea level Pressure during a typical day in Winter

Question 20

Quelle: IPCC AR6, Fig. SPM 5c

The figure shows the simulated change in precipitation relative to the period from 1850-1900. Which of these statements is false?

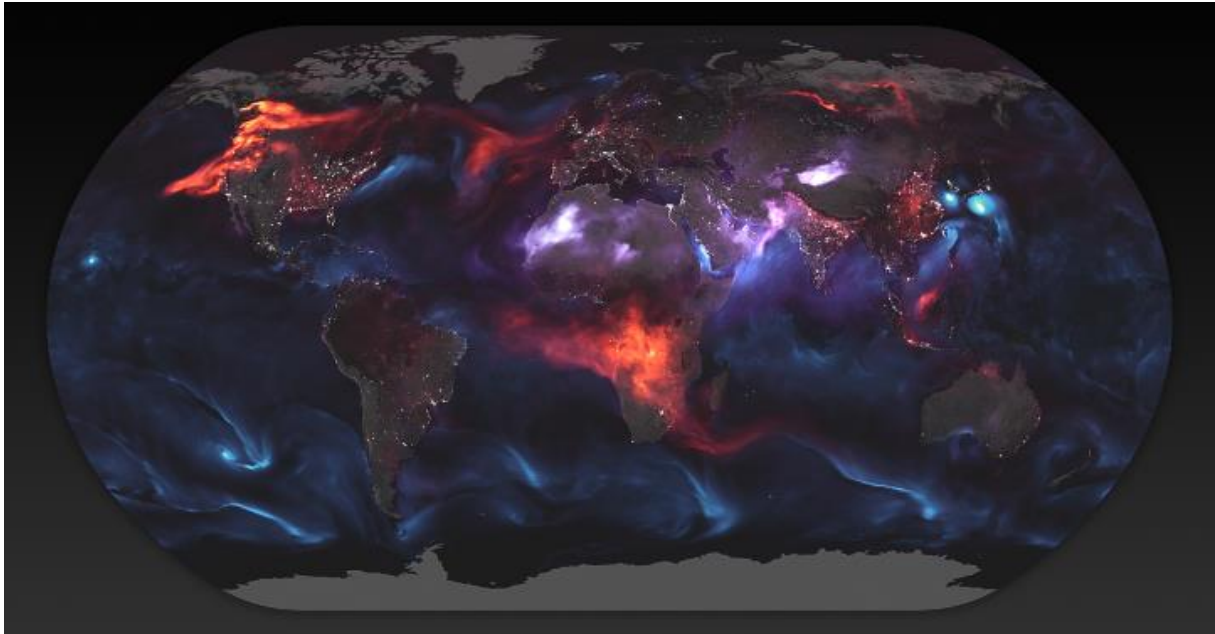Precipitation is projected to increase over high latitudes.
Precipitation is projected to increase over the equatorial Pacific and parts of the monsoon regions.
Precipitation is projected to decrease over parts of the subtropics.
Precipitation is projected to decrease over mountain belts.

Question 21

Quelle: https://visibleearth.nasa.gov/images/92654/just-another-day-on-aerosol-earth

The picture shows the distribution and concentration of the most important types of aerosols. Match the color with the correct description.

Red: Dust
Purple: Pollen
Blue: Sulfur
Red: Black Carbon
Purple: Dust
Blue: Sea Salt
Red: Virus
Purple: Sulfur
Blue: Sea Salt
Red: Pollen
Purple: Black Carbon
Blue: Virus

Question 22

The picture shows an example of desertification, which is a soil degrading process whereby fertile areas become increasingly arid. It is mainly caused by overexploitation of soil as a result of human activity. Which measure could NOT reduce the severity of desertification?
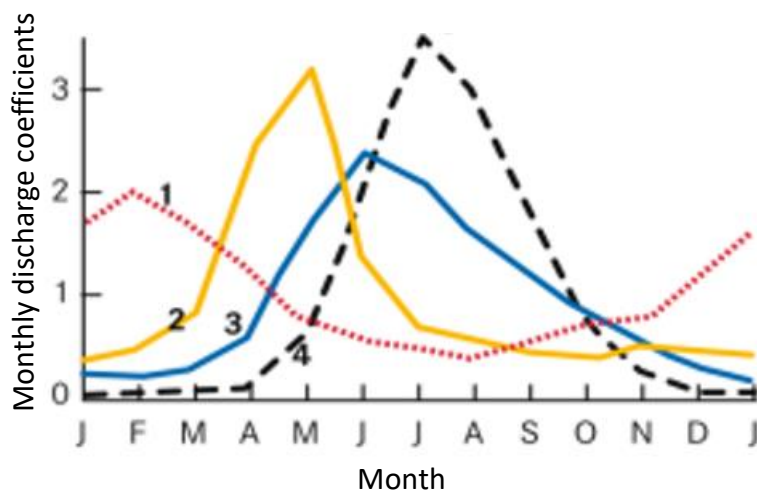
Define a period in which the area is unused.
Introduce fertilizer to the land.
Create a balance between the number of cattle and available pastures.
Uproot dead plants to create place for new ones.

The diagram shows the discharge regimes of four European rivers. Which curve corresponds to a river fed predominantly by meltwater?
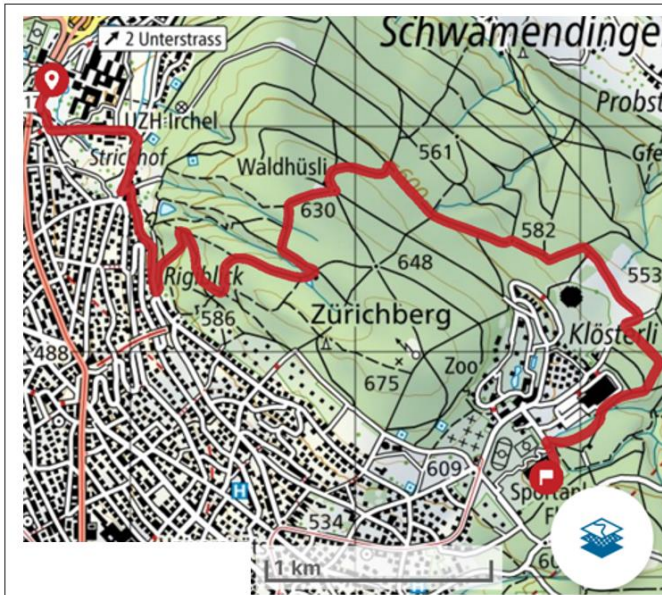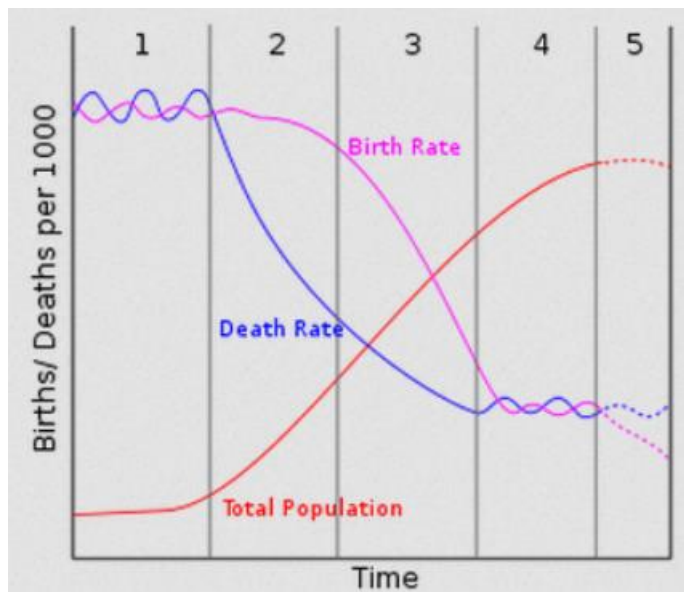
1

2

3

4

Question 24

Which profile fits the red trail?

1
2
3
4

Question 25

Which of these statements about the model of demographic transition is incorrect?

a) Countries manage to get from stage 1 to stage 2 by improving their health system.
b) A country in stage 5 would have a triangular population pyramid.
c) The total population grows during stage 2 because the birth rate is higher than the death rate.
d) The population of a country in stage 1 is imbalanced: the majority of the people are young.

Question 26

What is the purpose of this construction in the desert?

a) It is used to collect drinking water from the air.
b) It is a construction to produce solar energy.
c) Researchers use this construction to filter dust from the air.
d) This construction is used to catch insects.

Question 27

How are lines of equal pressure called?

    a) Isotachs
    b) Isobars
    c) Isolines
    d) Isotherms

Under which climatic conditions does the pictured weathering process mostly take place?

a) humid continental
b) moderate
c) semi-arid
d) humid subtropical
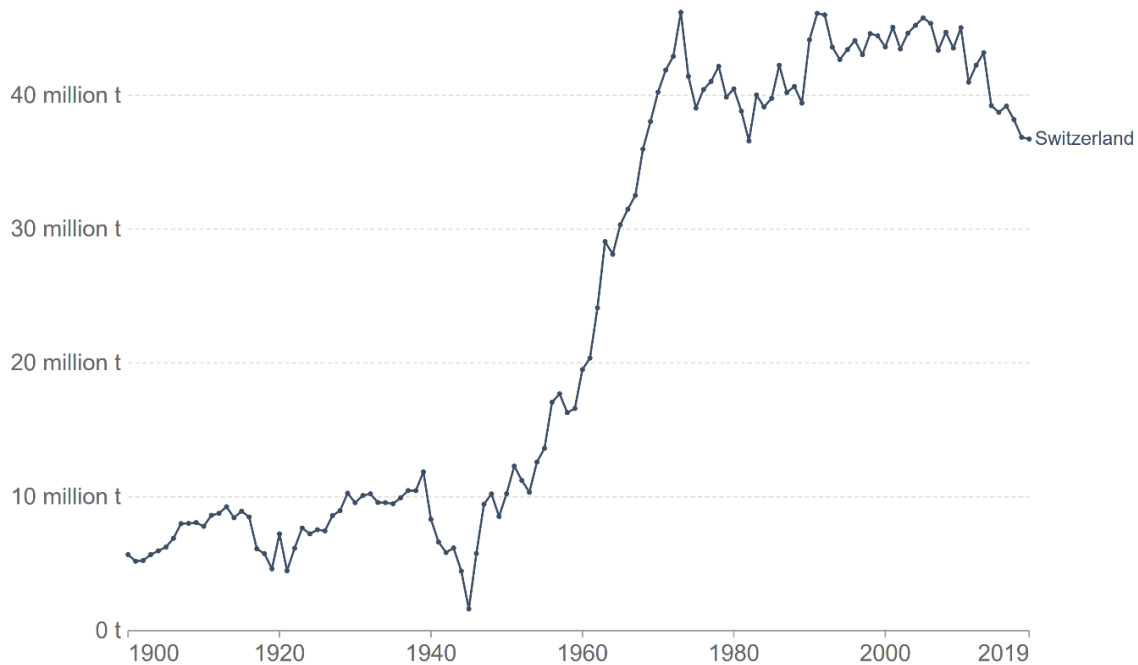
Question 29

How is this phenomenon called?

    a) Frost weathering
    b) Hydrolysis
    c) Peel weathering
    d) Onion weathering

Question 30

Annual CO₂ emissions

Carbon dioxide (CO$_2$) emissions from the burning of fossil fuels for energy and cement production. Land use change is not included.

The graph shows Switzerland's annual CO$_2$ emission from 1900 to 2019. What would you expect for the emission in 2020 (compared to 2019)?

a) Stayed constant
b) Increased
c) Decreased