

1)

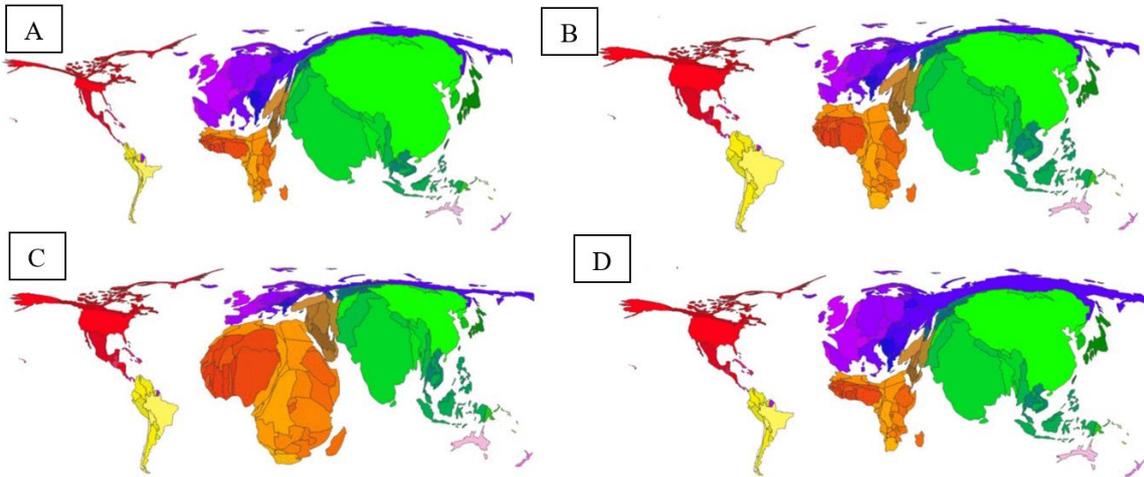
Which geological structure can be found in the picture on a hike in the region?



- a) Caves
- b) Erratic block
- c) Moraines
- d) Kettle lake

2)

The four pictures show the distribution of the world population during the last three and the next turn of the century. Match the pictures with the correct year.



Source: <https://www.vox.com/2016/1/12/10756390/gif-population-2100>

- a) 1800: C, 1900: A, 2000: D, 2100: B
- b) 1800: A, 1900: D, 2000: B, 2100: C
- c) 1800: A, 1900: C, 2000: D, 2100: B
- d) 1800: D, 1900: B, 2000: A, 2100: C

3)

Match the pictures to the coordinates.



- A) 3° S, 37° E
- B) 48° N, 2° E
- C) 13° S, 72° W
- D) 21° N, 39° E

A) 1: D, 2: A, 3: B, 4: C

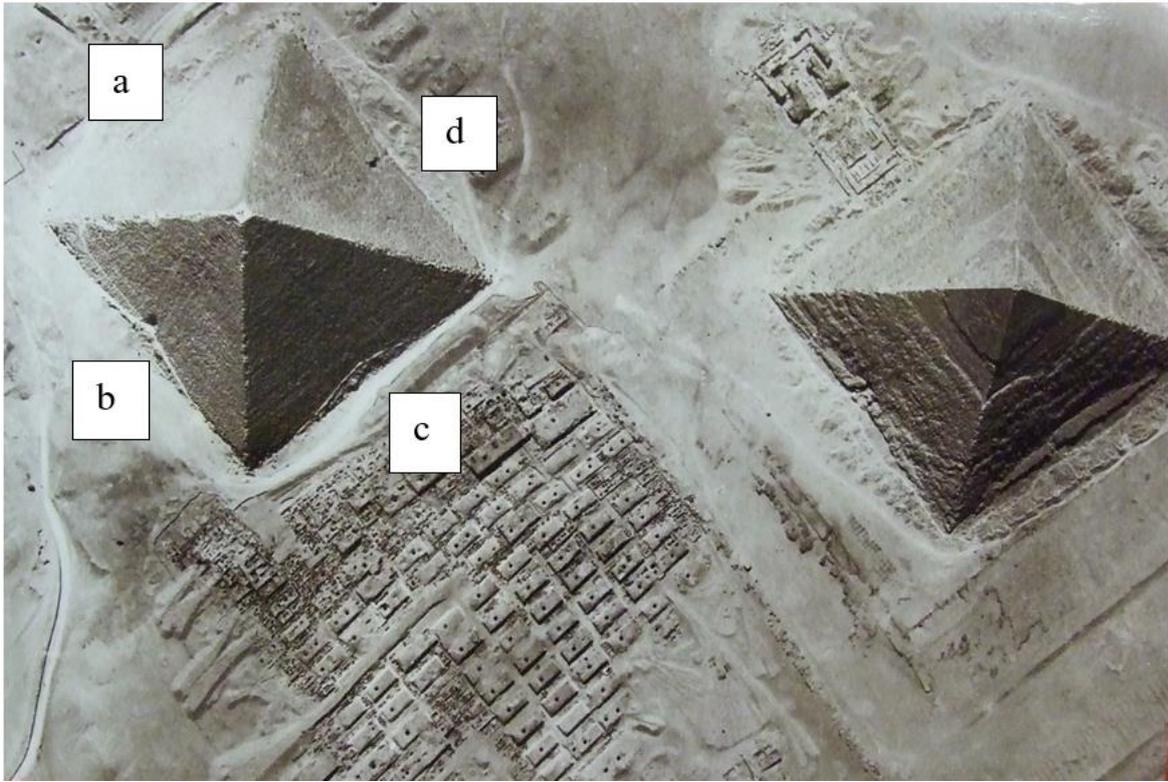
B) 1: C, 2: B, 3: A, 4: D

C) 1: B, 2: A, 3: C, 4: D

D) 1: D, 2: C, 3: B, 4: A

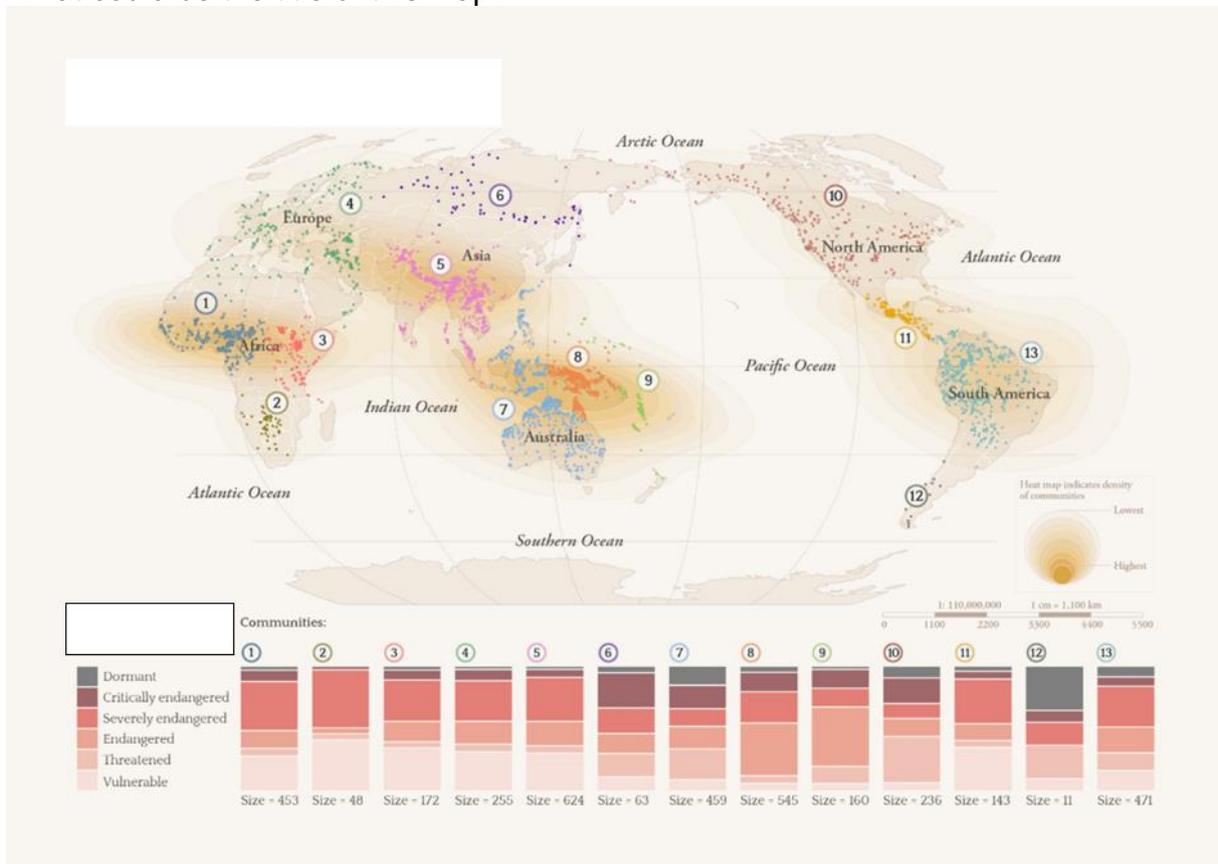
4)

The picture was taken in the morning. Which letter marks the western side of the pyramid?



- a) a
- b) b
- c) c**
- d) d

5)
 What could be the title of this map?

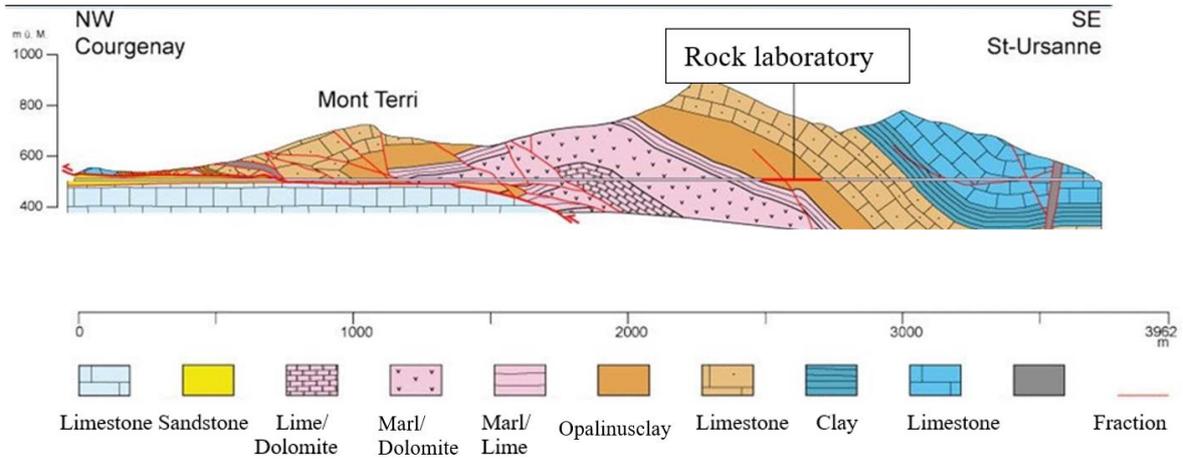


<https://www.nature.com/articles/s41598-022-14479-1/figures/1>

- a) Species threatened with extinction
- b) Languages threatened with extinction
- c) Cities and settlements at risk from earthquakes
- d) Regions with forced marriages

6)

Which statement is correct?



- a) The “rock laboratory” is located in a very active geological region and is therefore well suited for studying the formation of rocks.
- b) The “rock laboratory” is located in a geologically young formation with few impurities. This rock could therefore be used for the renovation of the Bern Cathedral.
- c) The “rock laboratory” is located in an impermeable rock formation and can therefore be used as a research station for radioactive repositories.
- d) The “rock laboratory” is located in a rock formation rich in minerals and can therefore be used as a research station for biodegradable food supplements.

7)

To which rock group does the stone shown belong?



(Source: nat.museum-digital.de)

a) Sedimentary rock

b) Metamorphite

c) Magmatite

d) Vulcanite

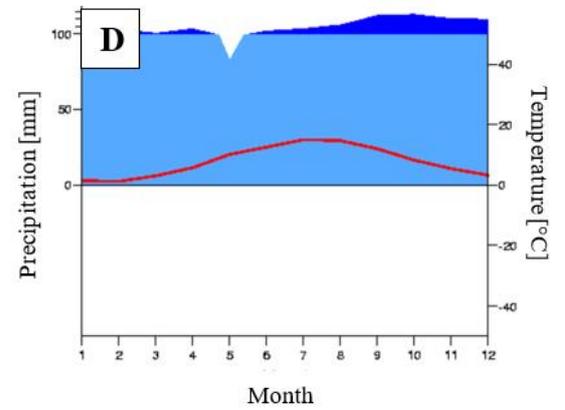
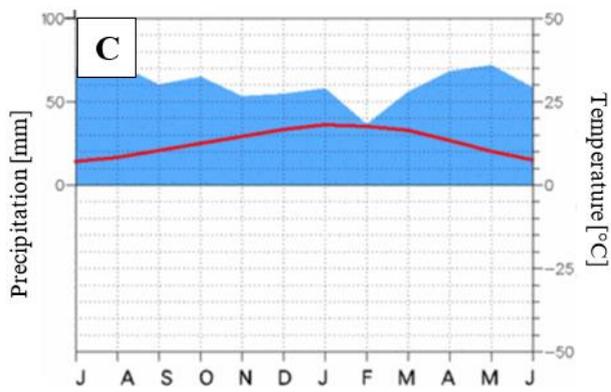
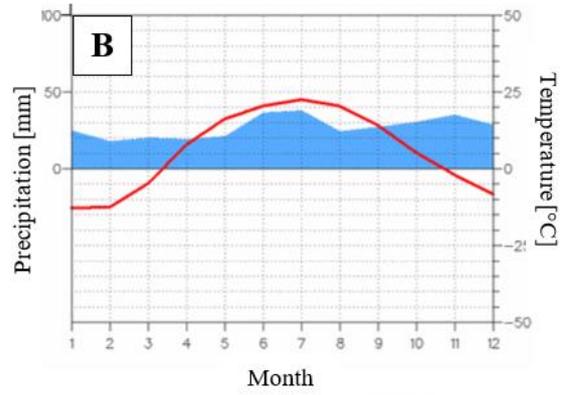
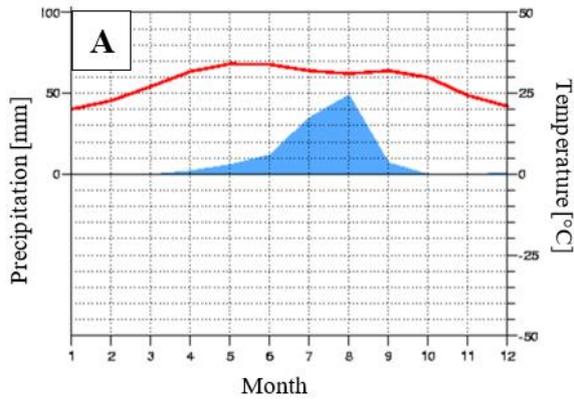
8)
Which of the following surfaces has the highest albedo?



- A
- B**
- C
- D

9)

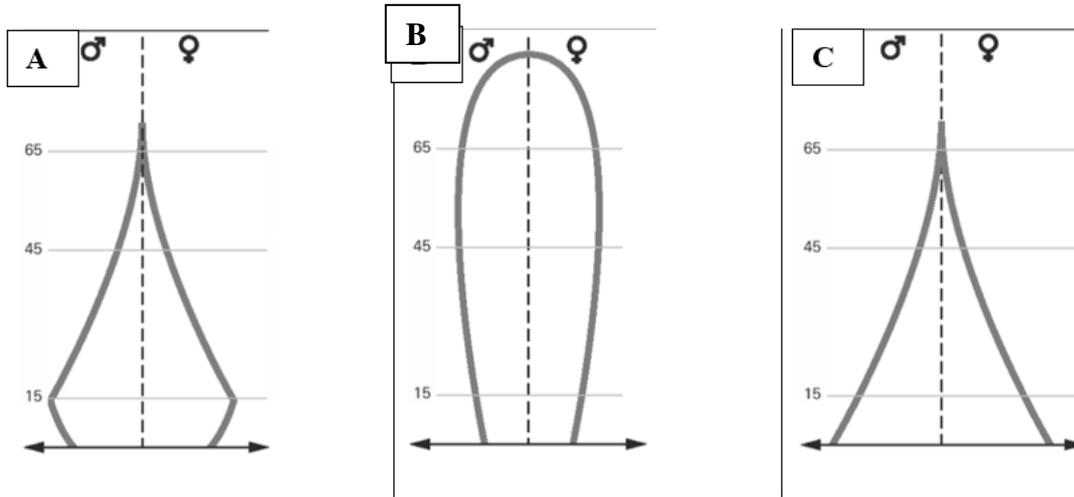
Which of the following climate diagrams shows continental climate?



- A
- B**
- C
- D

10)

Which countries fit the three population pyramid shapes?



a) Brazil b) Slovenia c) Mozambique

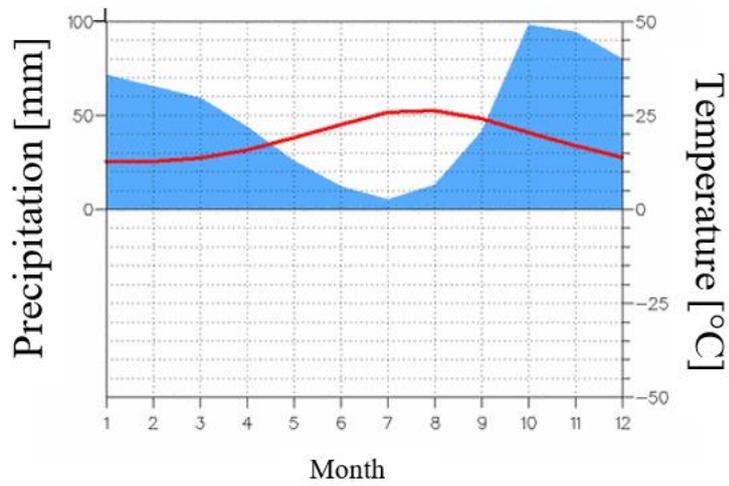
a) Argentina b) USA c) Mexico

a) Brazil b) Argentina c) China

a) Mexico b) Austria c) Brazil

11)

Which statement is true for the following climate diagram?



The place lies at the Mediterranean Sea.

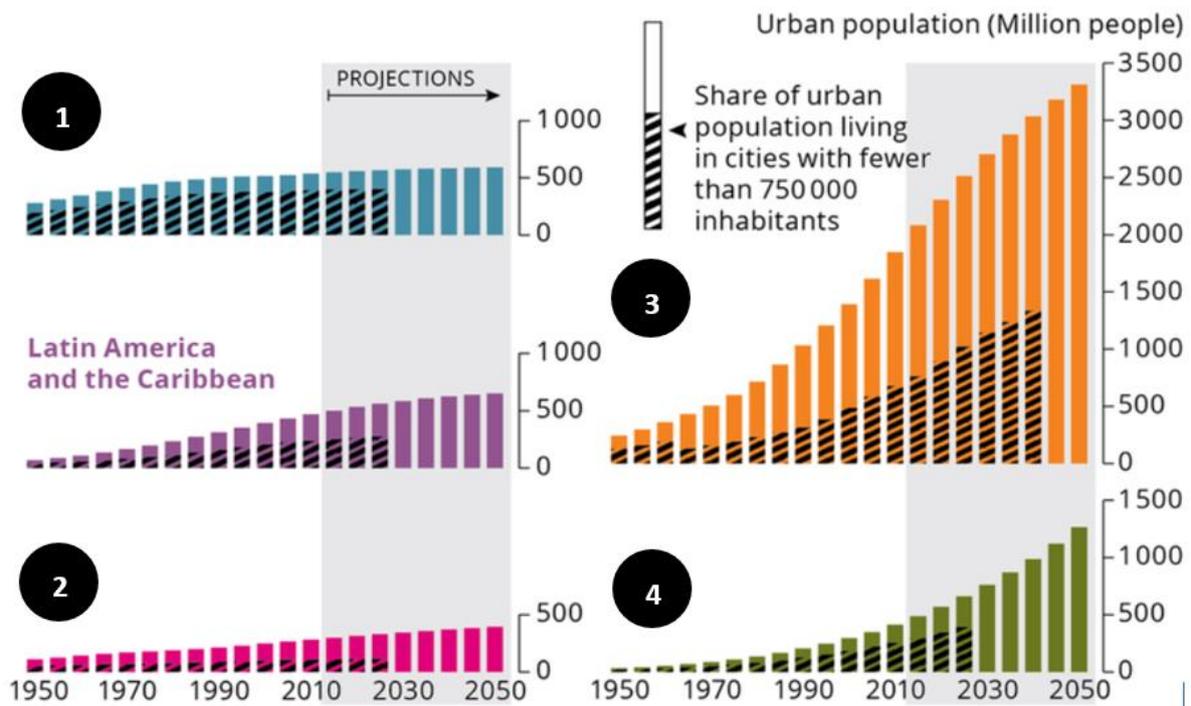
This station is located in the southern hemisphere.

All months are humid.

The place is located in the summer humid subtropics.

12)

The diagrams depict the degree of urbanisation on the different continents. The columns show the number of inhabitants living in cities. Which diagram belongs to which continent? Match the answers to the diagrams.

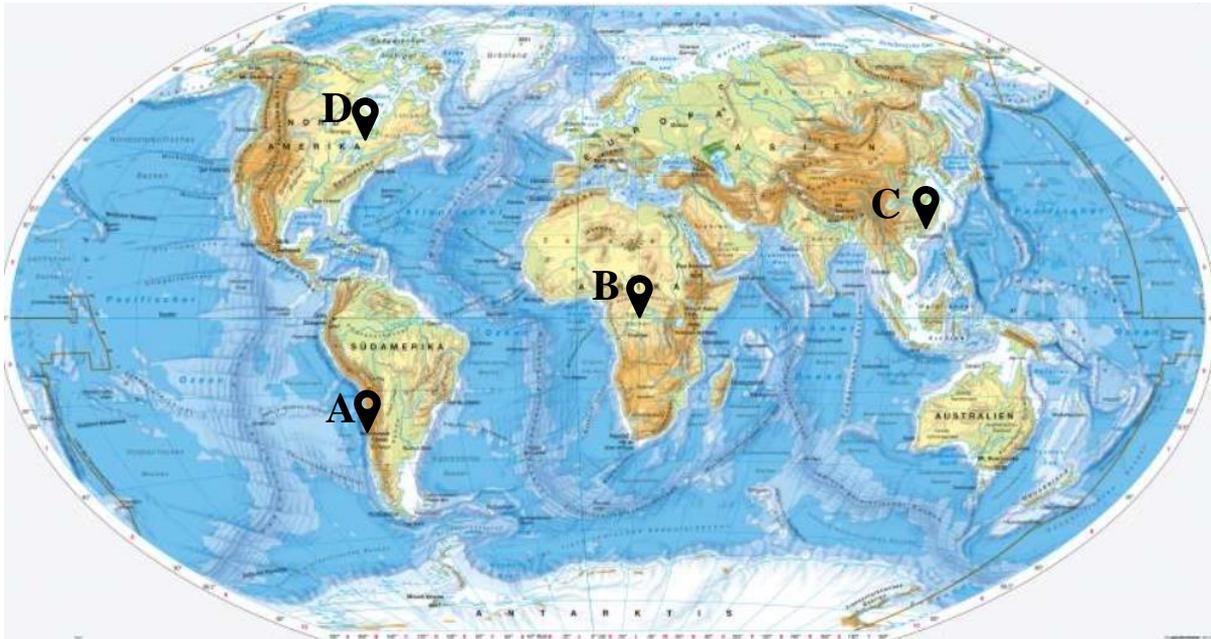


Source: <https://www.eea.europa.eu/data-and-maps/figures/urban-trends-by-world-regions>

- a) 1 – Europe, 2 – Africa, 3 – North America, 4 – Asia
- b) 1 – Europe, 2 – North America, 3 – Asia, 4 – Africa
- c) 1 – Africa, 2 – Europe, 3 – Asia, 4 – North America
- d) 1 – Asia, 2 – Africa, 3 – Europe, 4 – North America

13)

To which location on the world map does this short text fit? "For a long time, it has only rained a few millimetres a year and our valley is permanently brown. The only green areas are irrigated agricultural land and a few private gardens. The wells have to be lowered by a few metres year after year. The river from the mountains to the sea hardly carries any water in its short course. A few years ago, our valley still turned green, at least in winter. The desert is getting closer year by year".

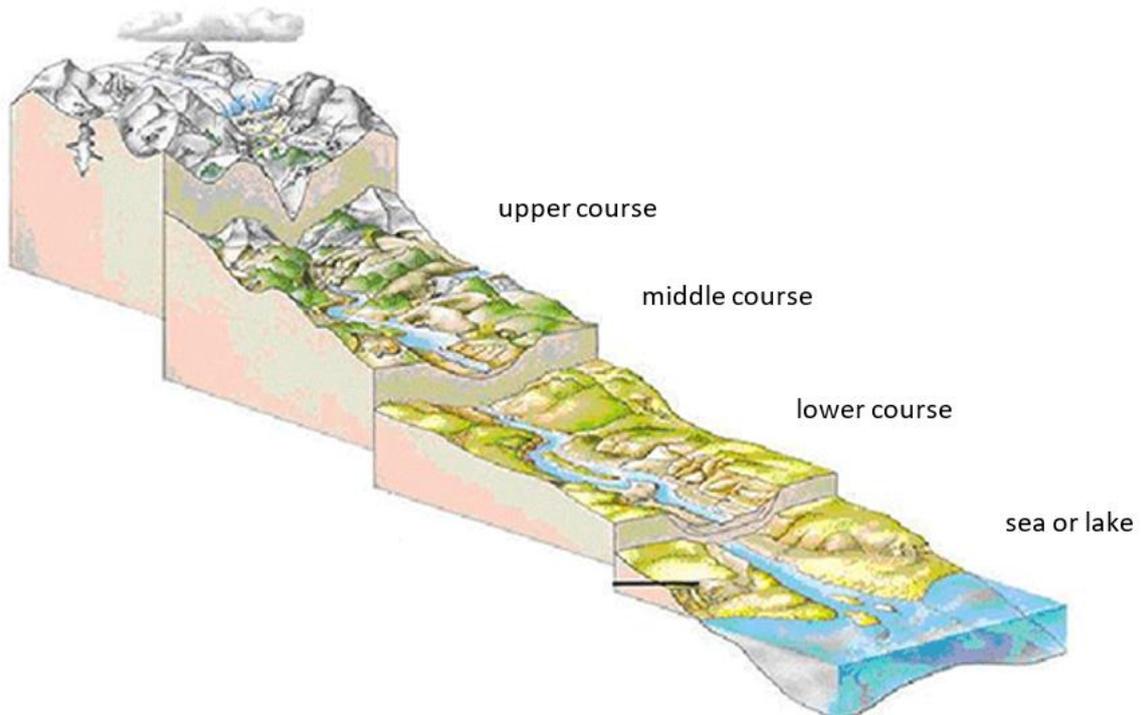


Source: <https://diercke.westermann.de/content/erde-physische-übersicht-978-3-14-100800-5-240-1-1>

- A
- B
- C
- D

14)

The illustration shows a schematic course of the river from its source to the sea or lake. Which of the following statements is correct?

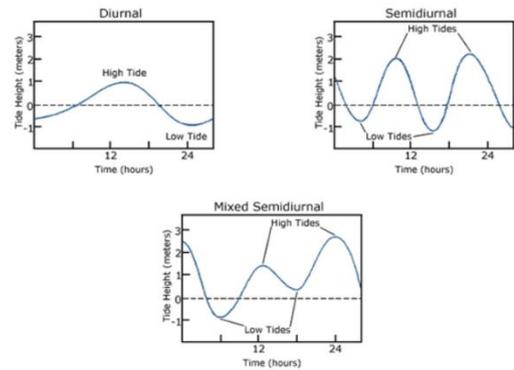
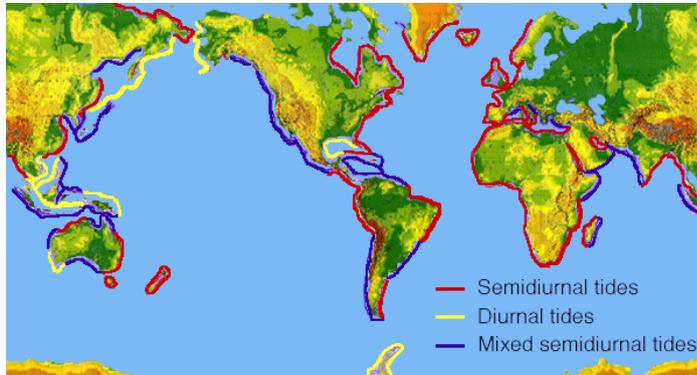


Source: <https://www.burnyundfloody.ch/wissensbeitrag/vom-einzugsgebiet-bis-zum-see>

- a) In the upper reaches of a river, lateral erosion and deep erosion dominate.
- b) The flow velocity from the upper reaches to the lower reaches increases towards the lower reaches.
- c) The sedimentation rate increases more and more towards the lower reaches.
- d) The transport rate is highest in the lower reaches.

15)

These two illustrations show daily patterns of high and low tide. Which statement cannot be derived from these illustrations?

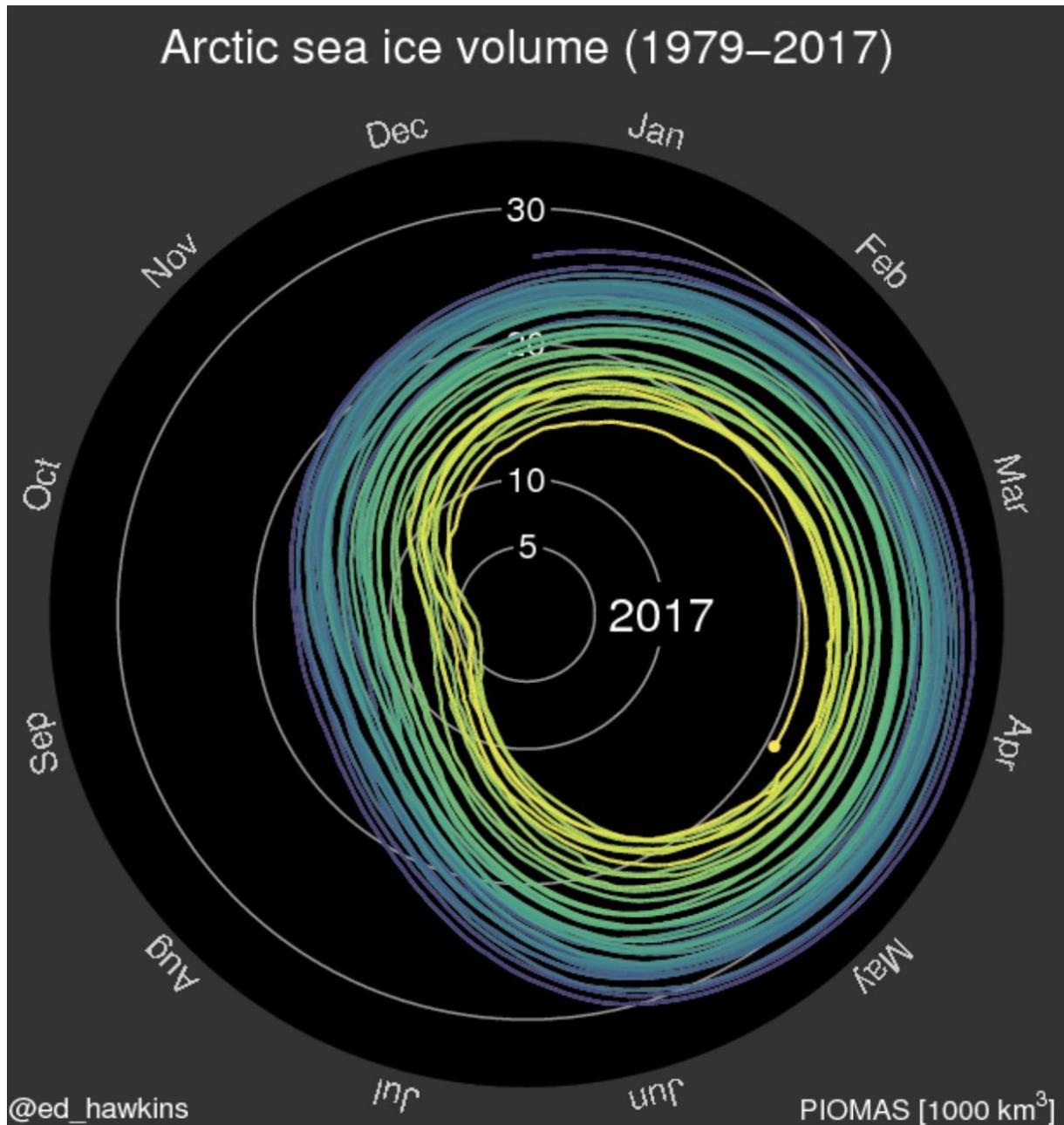


Source: https://oceanservice.noaa.gov/education/tutorial_tides/tides07_cycles.html

- There is no high and low tide twice a day everywhere in the world.
- Atlantic coasts mainly show "semidiurnal patterns".
- On the west coast of North America, the tides are always the same during the day.
- The diurnal tidal pattern means that there is one low tide and one high tide in a day.

16)

Which statement is wrong?



Source: <https://www.climate-lab-book.ac.uk/spirals/>

- A) The ice volume in July has decreased by about 15,000 km³ between 1979 and 2016.
- B) The ice volume has approximately doubled in two months from November 2016.
- C) The annual volume decrease has increasingly accelerated since 1979.
- D) September is the warmest month in the Arctic.

17)

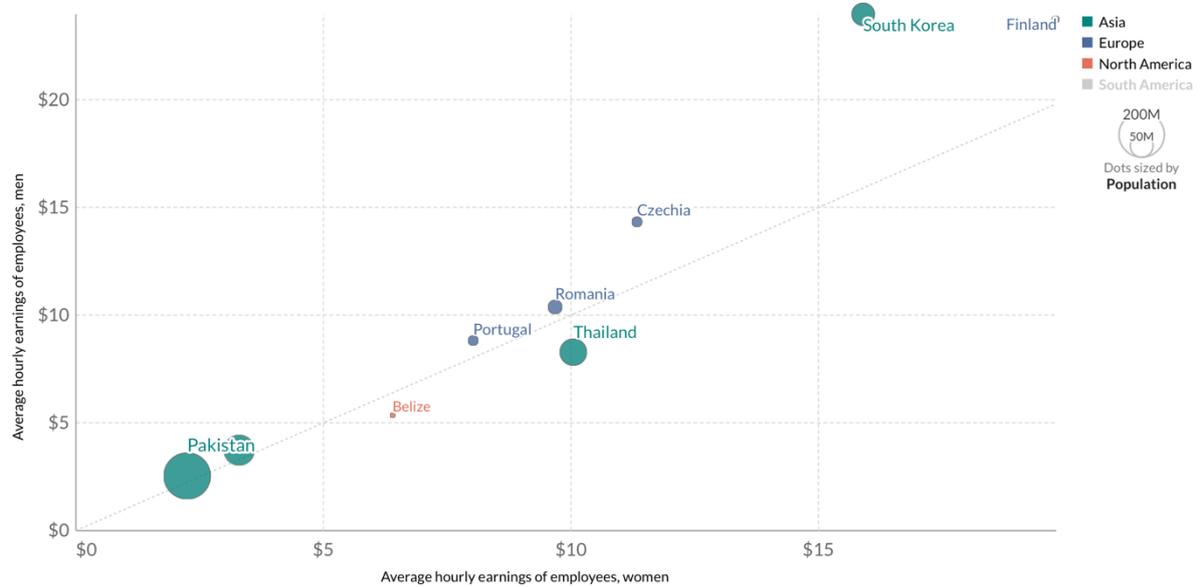
Which statement about the situation in 2018 is false?

Average hourly earnings of male and female employees, 2016

Earnings are defined as in-cash and in-kind payment to employees at regular intervals, for time worked or work done together with remuneration for time not worked, such as annual vacation, other type of paid leave or holidays. This is measured in constant 2011 international- $\$$.



Select countries Average annual change



Source: ILOSTAT

OurWorldInData.org/income-inequality • CC BY

Source: <https://ourworldindata.org/grapher/hourly-earnings-male-vs-female?time=2016>

- A) In most of the countries listed, employed men earn more in an hour than women.
- B) The smallest wage gap between employed men and women is in Pakistan.
- C) The largest wage gap between employed men and women is in Finland.
- D) An employed man in South Korea earns about three times as much in an hour as one in Thailand.

18)

The picture above shows the crescent Earth rising behind the moon. It was taken by the Orion spacecraft in late 2021. How does the moon appear when seen from Earth?

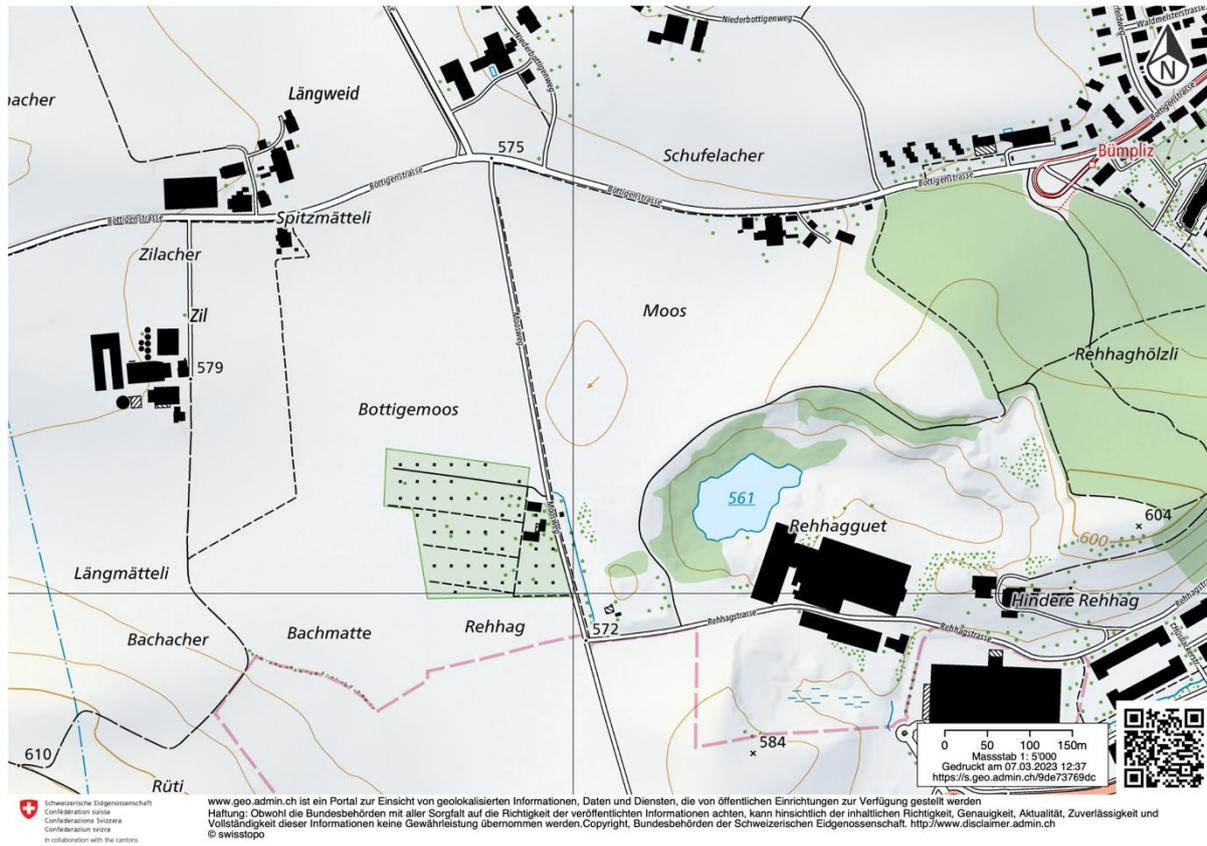


Source: <https://www.spektrum.de/alias/bilder-der-woche/artemis-i-wenn-ueber-dem-mond-die-erde-aufgeht/2084838>

- A) As a waxing new moon.
- B) As a waning crescent moon.
- C) As a waning full moon.
- D) As a waxing crescent moon.

19)

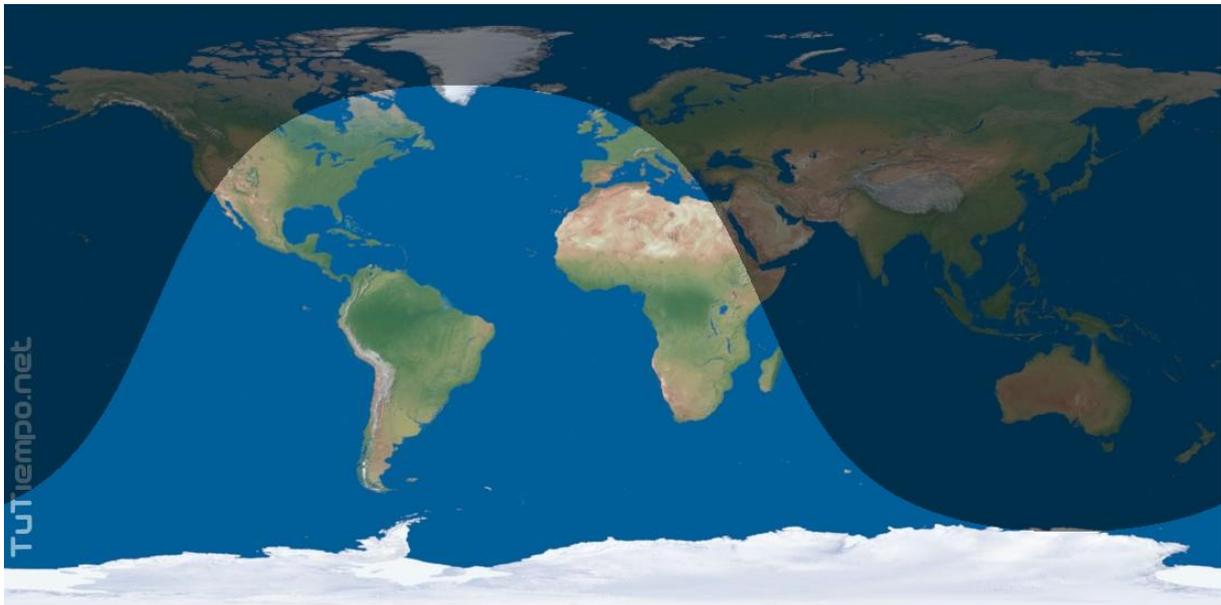
Which of the stated problems is typical for the area visible on the map?



- A) Erosion
- B) Salinisation
- C) Waterlogging**
- D) Fine dust pollution

20)

On which date and at which Swiss time is the earth illuminated by the sun in the following pattern?



a) 20 December, 04:00 pm CET

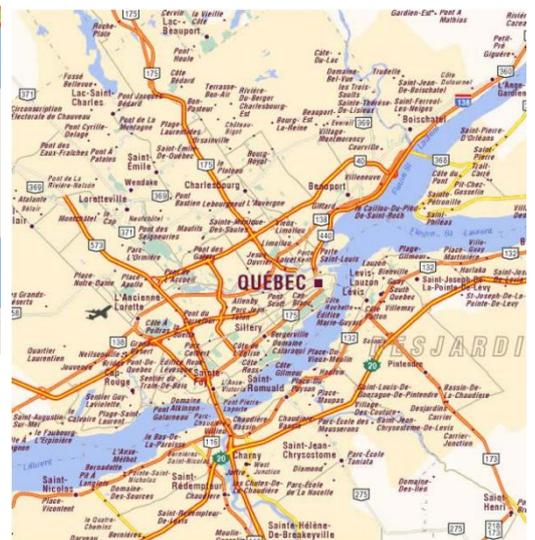
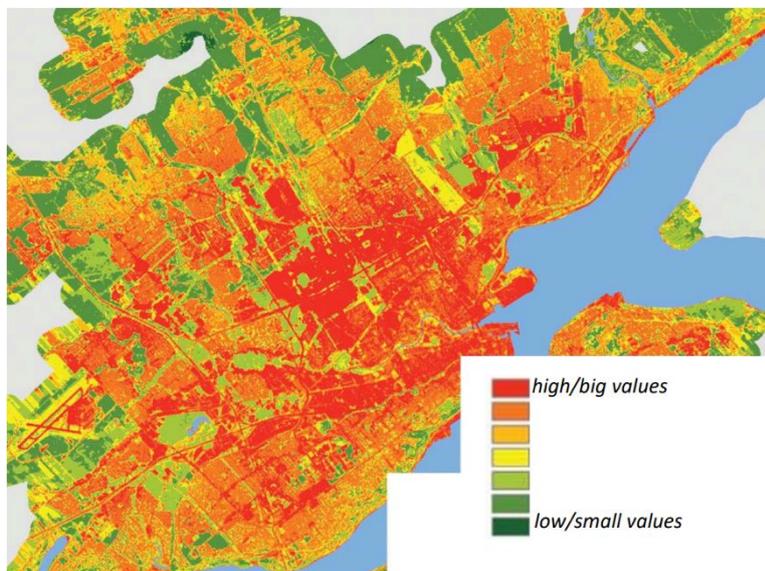
b) 20 November, 09:00 am CET

c) 20 June, 08:00 pm CET

d) 20 May, 07:00 am CET

21)

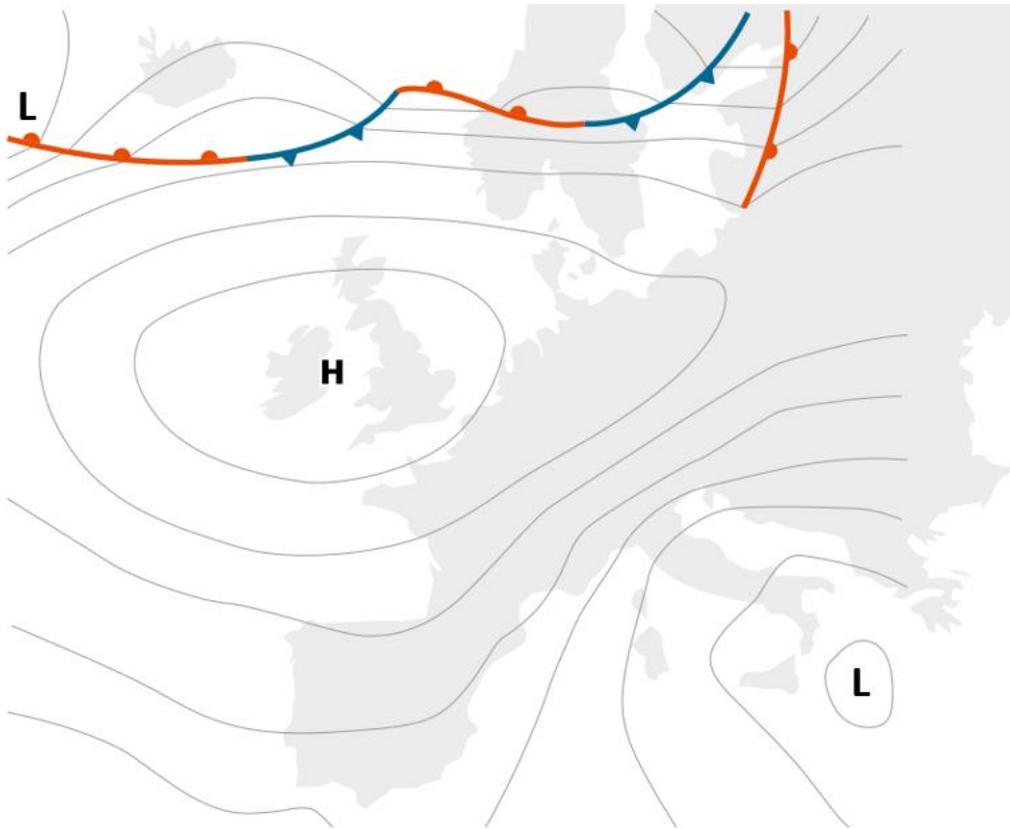
What is shown on the left map of Quebec City?



- a) Age of the houses
- b) Rental prices
- c) Noise emissions
- d) Temperature

22)

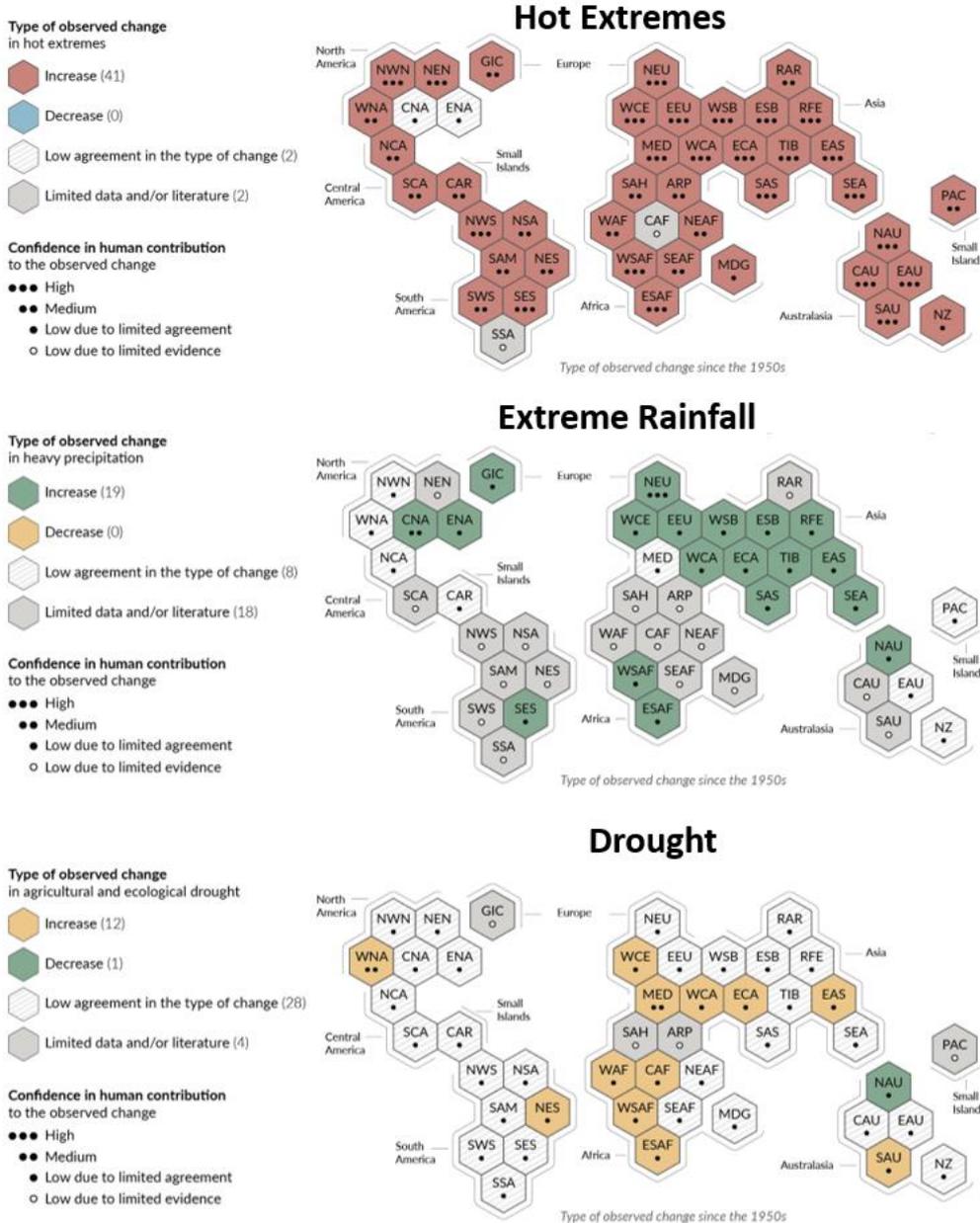
What weather situation would we expect in Switzerland with such a pressure distribution?
High pressure areas are marked with an 'H', low pressure areas with an 'L'.



- a) Bise weather
- b) West wind
- c) High pressure
- d) Southern foehn

23)

The figure shows the increase in heat extremes, extreme precipitation and droughts since 1950. Which statement is wrong?



- a) Climate change is already affecting every inhabited region on earth.
- b) Western-Central Europe including Switzerland is a hotspot for changes in climate extremes.
- c) Less data is collected in the Southern hemisphere than in the Northern hemisphere.
- d) The human contribution to the increase in the frequency of droughts is more securely documented than the human contribution to the increase in the frequency of heat extremes.

24)

Heaviside's dolphins are only found in the cold coastal waters of Namibia and the west coast of South Africa. In which ocean current do they live?



Source: <https://africageographic.com/stories/complex-communication-heavisides-dolphins-produce-unusual-sounds-communicate/>

- a) Benguela Current
- b) Agulhas Current
- c) Gulf Stream
- d) Humboldt Current

25)

What can be deduced from this photo of the mountain range?



- a) A and B formed at the same time.
- b) A probably formed first.
- c) **B probably formed first.**
- d) Nothing can be deduced from the photo about the time of its formation.

26)

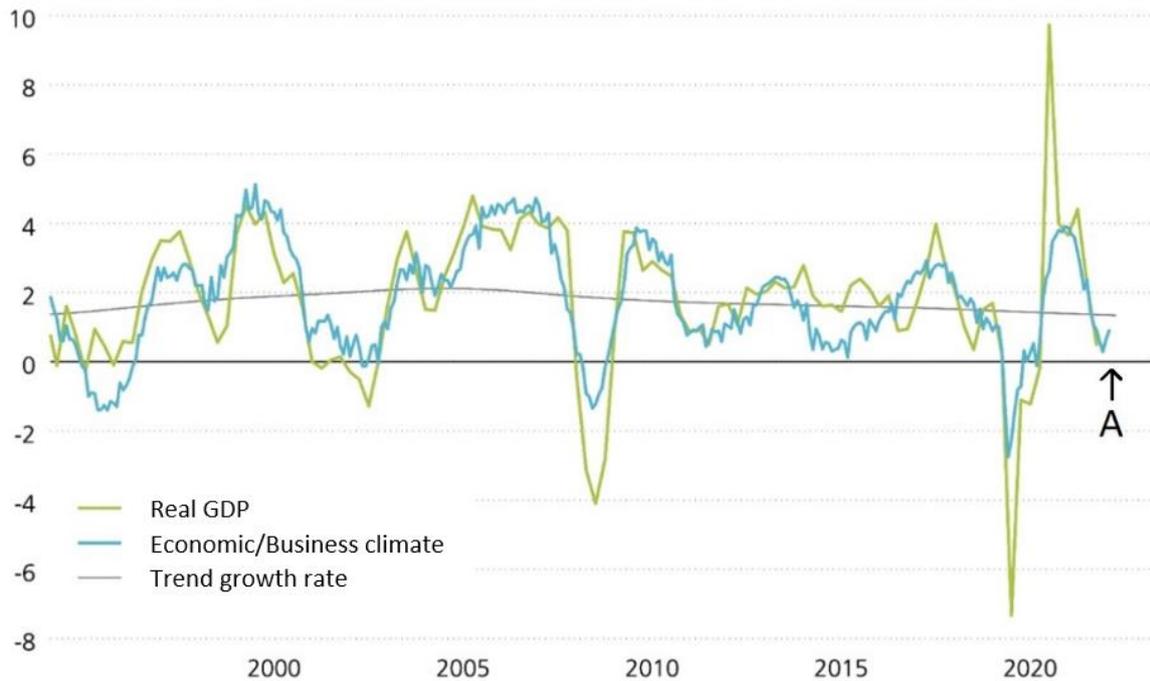
The photo was taken at the site with coordinates $31^{\circ}39'57.22''\text{S}$, $24^{\circ}40'53.56''\text{E}$ at 07:10 pm. In which direction was the photographer looking?



- a) North
- b) East**
- c) South
- d) West

27)

The 4 phases of the economic cycle are (1) upswing, (2) boom, (3) recession, and (4) depression. In which phase of the economic cycle is Switzerland currently (A)?

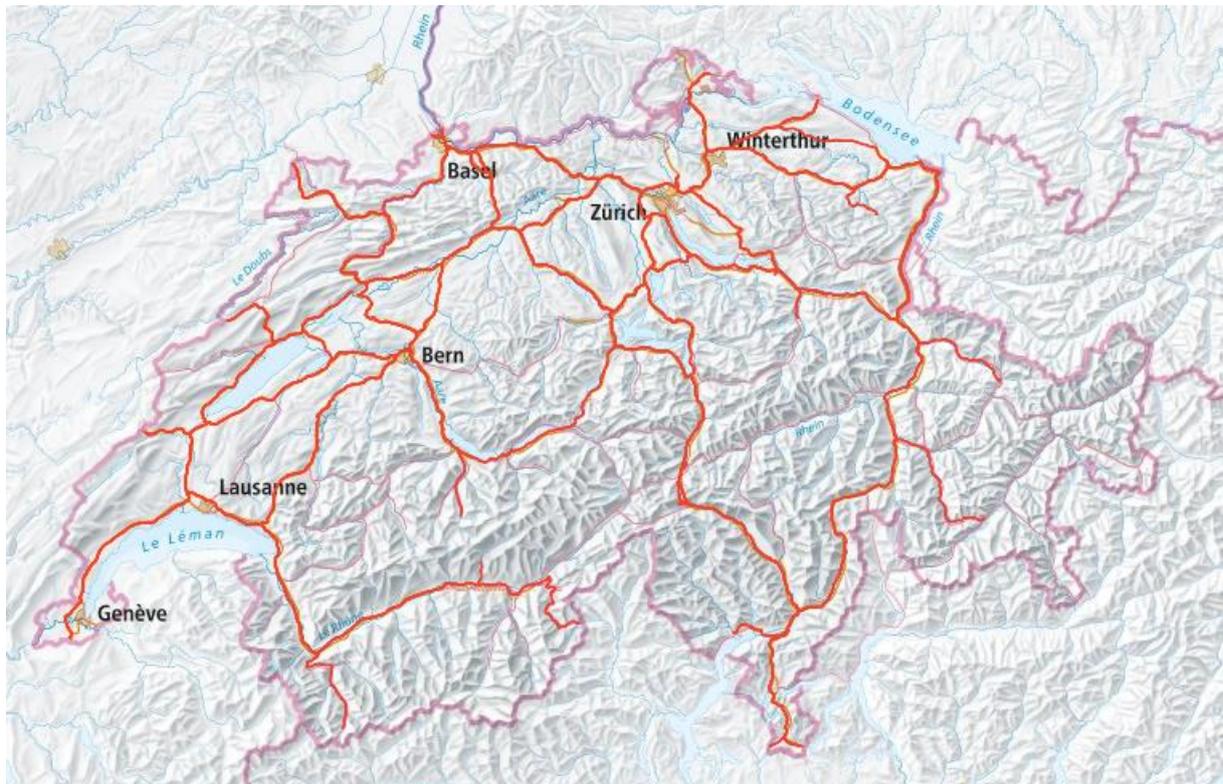


Source: https://www.postfinance.ch/de/privat/beduerfnisse/erwachsene/anlagekompass/die-wirtschaft.html?gclid=Cj0KCQiApKagBhC1ARIsAFc7Mc5y_1KMpzLqKVUgwqCcir6dII21KTaS204_nR3PMmQNeuz0mqnlO0aAhRIEALw_wcB&gclid=aw.ds

- a) Phase 2
- b) Phase 3
- c) Transition from phase 3 to phase 4
- d) Transition from phase 4 to phase 1

28)

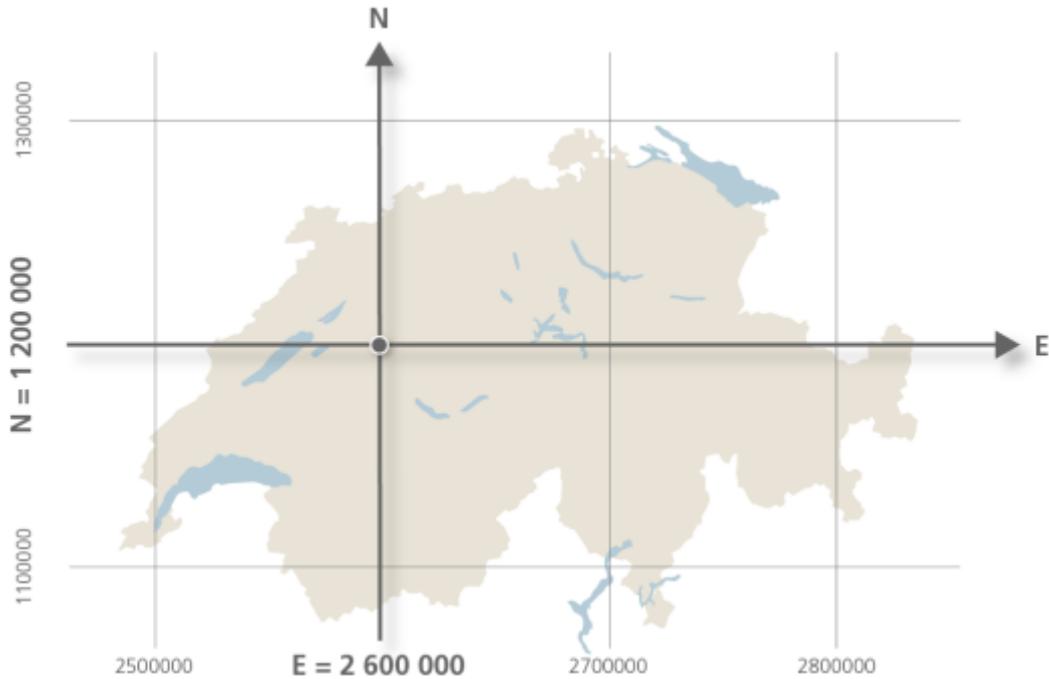
What is shown on the following map of Switzerland?



- A) National road axes
- B) Railway lines
- C) Fibre optic cables
- D) Cycle route network

29)

The Swiss National Survey LV95 coordinates have 7 digits in the east-west direction and 7 in the north-south direction. The base point is located in Bern and has the coordinates E 2'600'000 and N 1'200'000. What are the coordinates of Zurich's main railway station?

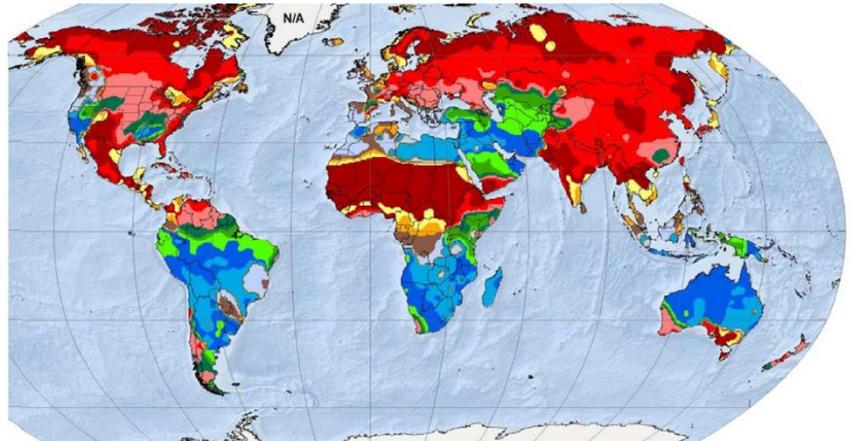


- A) E 2'683'034 / N 1'248'102
- B) E 2'683'034 / N 1'110'169
- C) E 2'575'284 / N 1'248'102
- D) E 2'633'155 / N 1'106'311

30)

The map shows the wettest month of the year. Which legend matches the map?

A	B	C	D
January	January	January	January
February	February	February	February
March	March	March	March
April	April	April	April
May	May	May	May
June	June	June	June
July	July	July	July
August	August	August	August
September	September	September	September
October	October	October	October
November	November	November	November
December	December	December	December



- A
- B**
- C
- D