

## Question 1

This document has been uploaded so that teachers or students can look over the questions that students have answered correctly or incorrectly. They contain none of the interactive elements of the online competition. Some of the wider graphics are missing their edges but the skill/knowledge required by the student to answer the question remains clear.

**1. In the table below, choose an example for each state in which water exists.**

*Choose the answers from the drop-down menus.*

State	Example
solid	<input type="text" value=""/>
liquid	<input type="text" value=""/>
gas	<input type="text" value=""/>

solid: groundwater, rain, glacier

liquid: ocean, hail, iceberg

gas: water vapour, river, snow

**Question 2****2. Which water cycle processes match the definitions.**

*Drag and drop the answers.*

Precipitation      Evaporation      Condensation

**Evaporation** is the process of a liquid changing to a gas.

**Condensation** is the process of a gas changing to a liquid.

**Precipitation** is any liquid or solid water that falls to Earth.

## Question 3

### 3. Which labels match the water cycle processes marked A to D in the diagram?

Drag and drop the answers.

EVAPORATION    RUNOFF    CONDENSATION  
PRECIPITATION

Label A

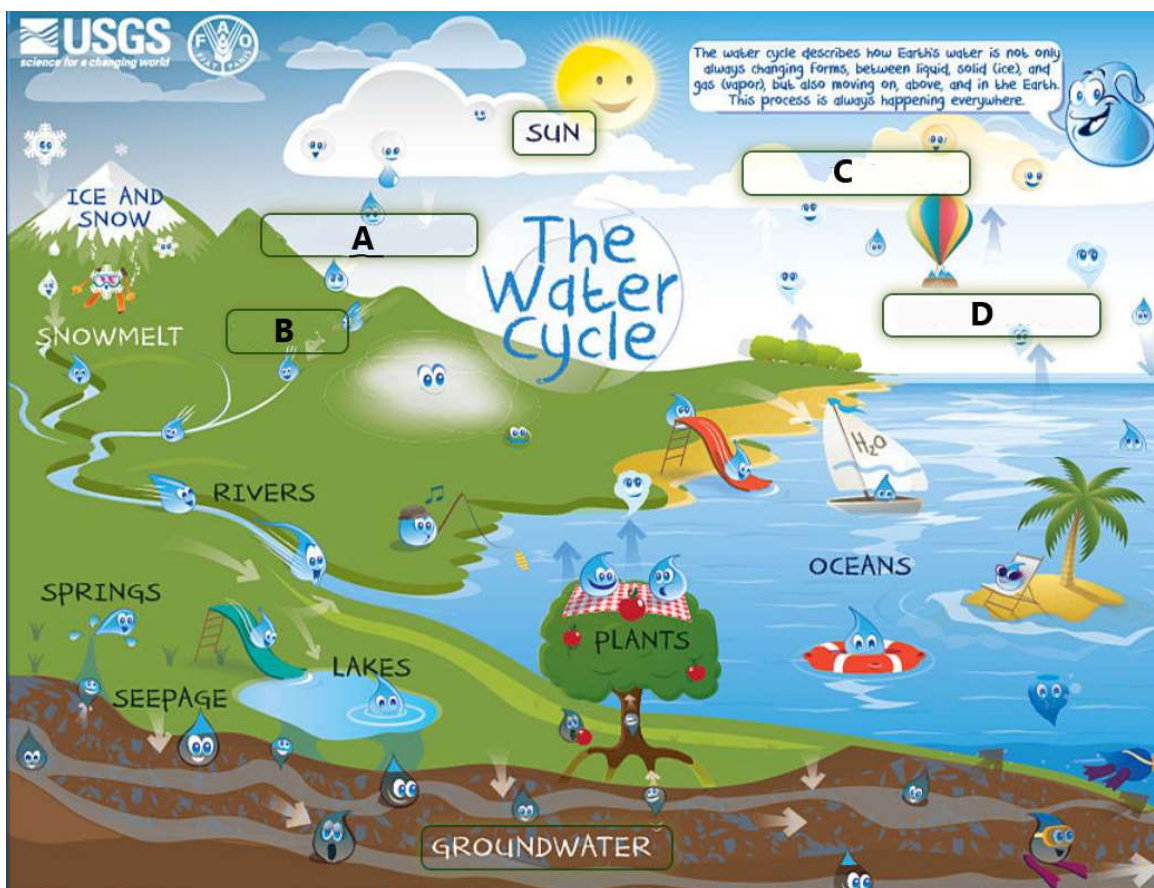
Label B

Label C

Label D

The water cycle

© U.S. Geological Survey



## Question 4

4. Approximately what percentage of all the water on Earth is found in the ocean?

37% 1

57% 2

77% 3

97% 4

Question 5

5. Match the ocean names with the locations on the map.

Drag and drop the answers.

Pacific Indian Atlantic Arctic Southern

Location A Arctic

Location B Atlantic

Location C Indian

Location D Pacific

Location E Southern

World map

© TUBS; CC SA 3.0



Question 6

6. How much rain did Kalgoorlie (WNW of Perth) receive in the month presented in the map?

31 mm

1

65 mm

2

127 mm

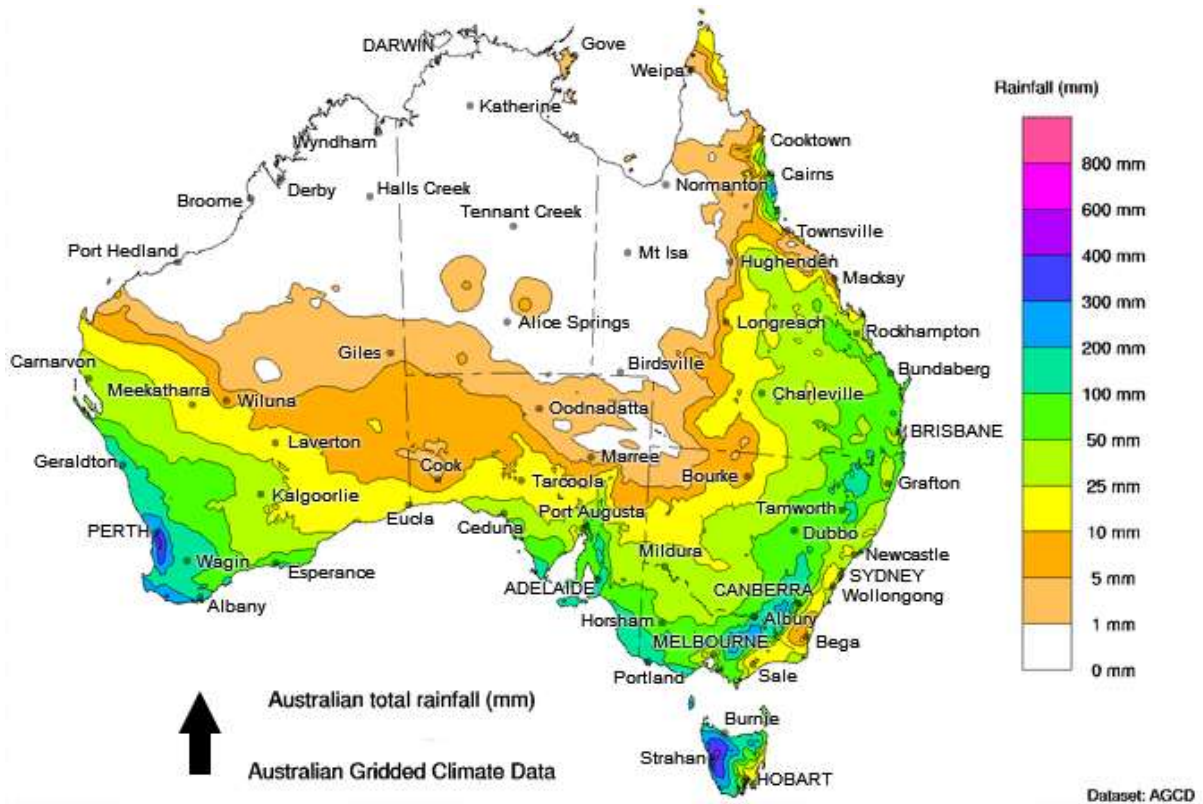
3

209 mm

4

Australian total rainfall for selected month in 2021

© Commonwealth of Australia, Bureau of Meteorology



Question 7

7. Given the pattern of rainfall, from which season is the data in the map?

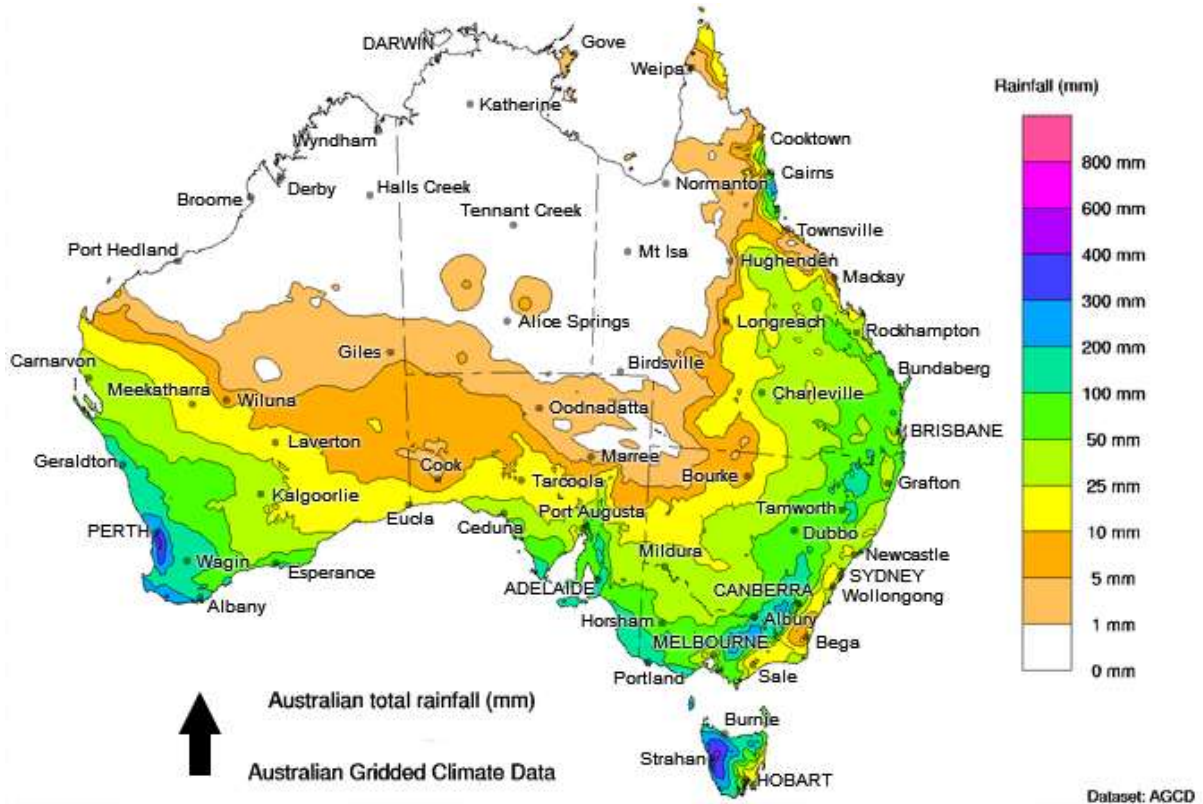
Drag and drop the answer.

autumn winter summer spring

The map is for a month in winter.

Australian total rainfall for selected month in 2021

© Commonwealth of Australia, Bureau of Meteorology



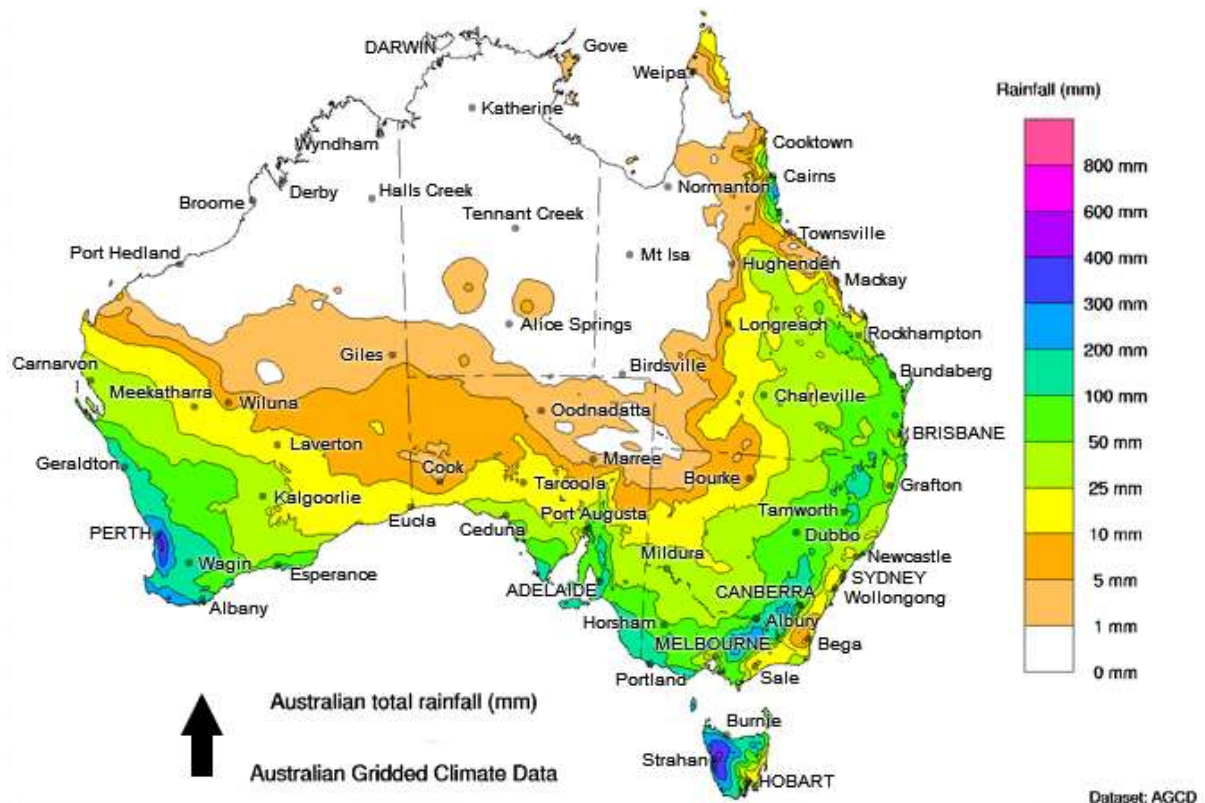
Question 8

8. Using the map, which direction is Melbourne from Alice Springs?

- southeast 1
- northwest 2
- southwest 3
- northeast 4

Australian total rainfall for selected month in 2021

© Commonwealth of Australia, Bureau of Meteorology





## Question 9

**9. Based on the satellite image, which warning would have been issued by the Bureau of Meteorology for an area in coastal north Queensland?**

fire weather warning

1

severe thunderstorm warning

2

tsunami warning

3

tropical cyclone warning

4

*Satellite image, 2 February 2011*

*© Commonwealth of Australia, Bureau of Meteorology*



## Question 10

10. Using the data in the table, how much rain does Tunis receive in winter on average?

Enter the number in the box. You may use a calculator.

mm

Climate data, Tunis, Tunisia

Source: World Meteorological Organization

Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Average temperature, °C	11.5	12.0	13.2	15.6	19.3	23.2	26.3	26.8	24.4	20.4	15.9	12.0
Average rainfall mm	59	57	47	38	23	10	3	7	32	65	56	6

## Question 11

11. Based on the data in the table, which type of climate does Tunis have?

 arid

1

 continental

2

 Mediterranean

3

 tropical

4

Climate data, Tunis, Tunisia

Source: World Meteorological Organization

Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Average temperature, °C	11.5	12.0	13.2	15.6	19.3	23.2	26.3	26.8	24.4	20.4	15.9	12.0
Average rainfall mm	59	57	47	38	23	10	3	7	32	65	56	65

**Question 12**

**12. Which of these is the definition of water scarcity?**

- one of the resources provided by nature 1
- areas with low rainfall 2
- a finite amount of water; once used it cannot be used again 3
- not enough water to meet standard demands 4

## Question 13

**13. What are the steps in the formation of a rain shadow? Number the events in the table in the correct sequence.**

*Enter the numbers in the boxes.*

Order	Rain shadow formation steps
<input type="text" value="3"/>	On the far side of the mountain range, the air has lost most of its moisture and warms as it descends.
<input type="text" value="2"/>	The moist air cools as it rises, condensing and producing rain.
<input type="text" value="4"/>	This warmer, drier air means rain is less likely on the far side of the mountain range.
<input type="text" value="1"/>	Moist prevailing winds blowing in from the ocean rise up when they are blocked by a mountain range.

## Question 14

**14. What is the height of the highest point on the map?**

Enter the number in the box.

m

Mount Tabletop map extract

© State of Queensland, Department of Resources



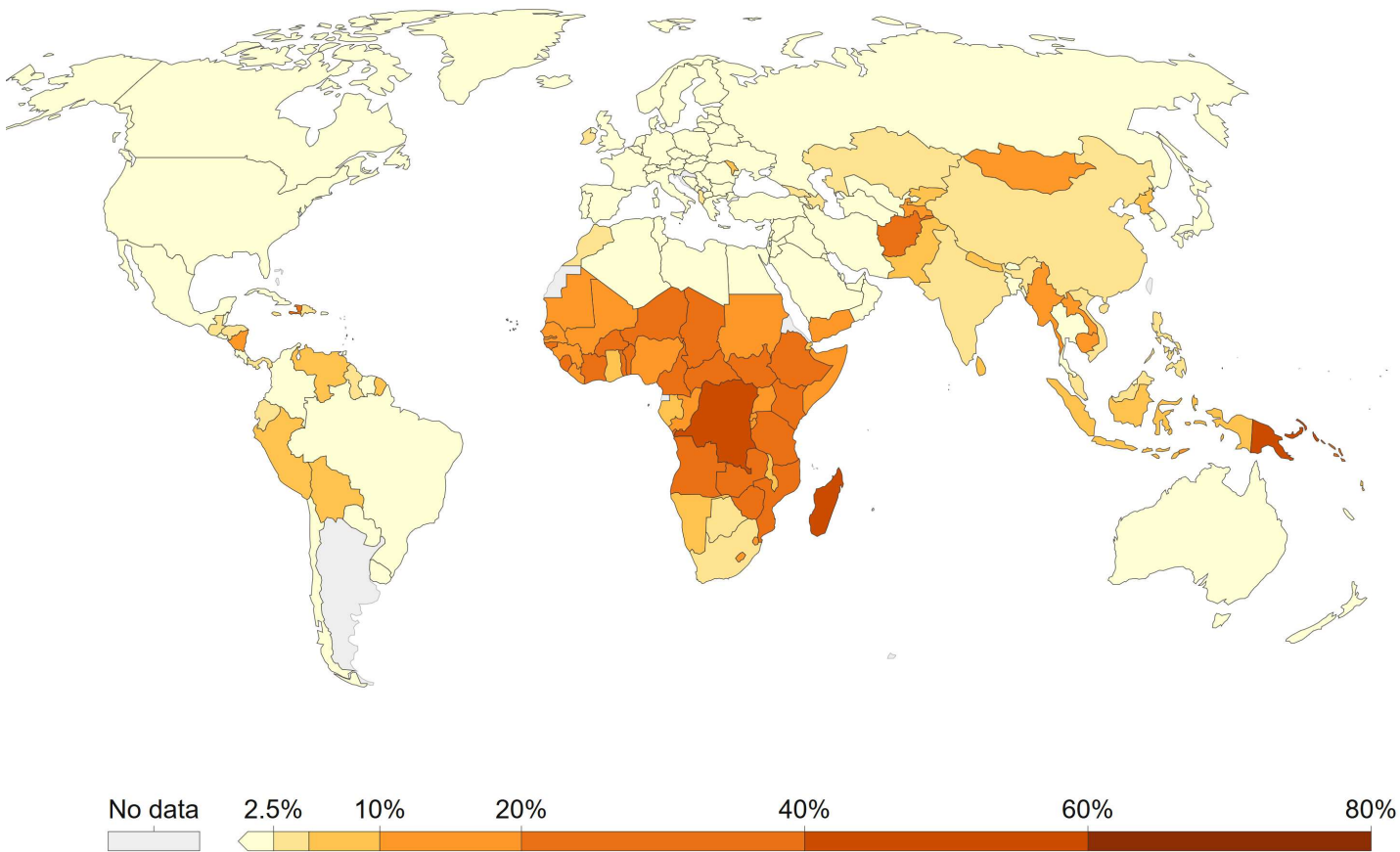
Question 15

15. Based on the map, what is one reason why people have more access to an improved water source?

- higher population 1
- larger land area 2
- higher GDP per capita 3
- population density 4

Share of the population without access to an improved water source, 2020

© Our World in Data, CC BY



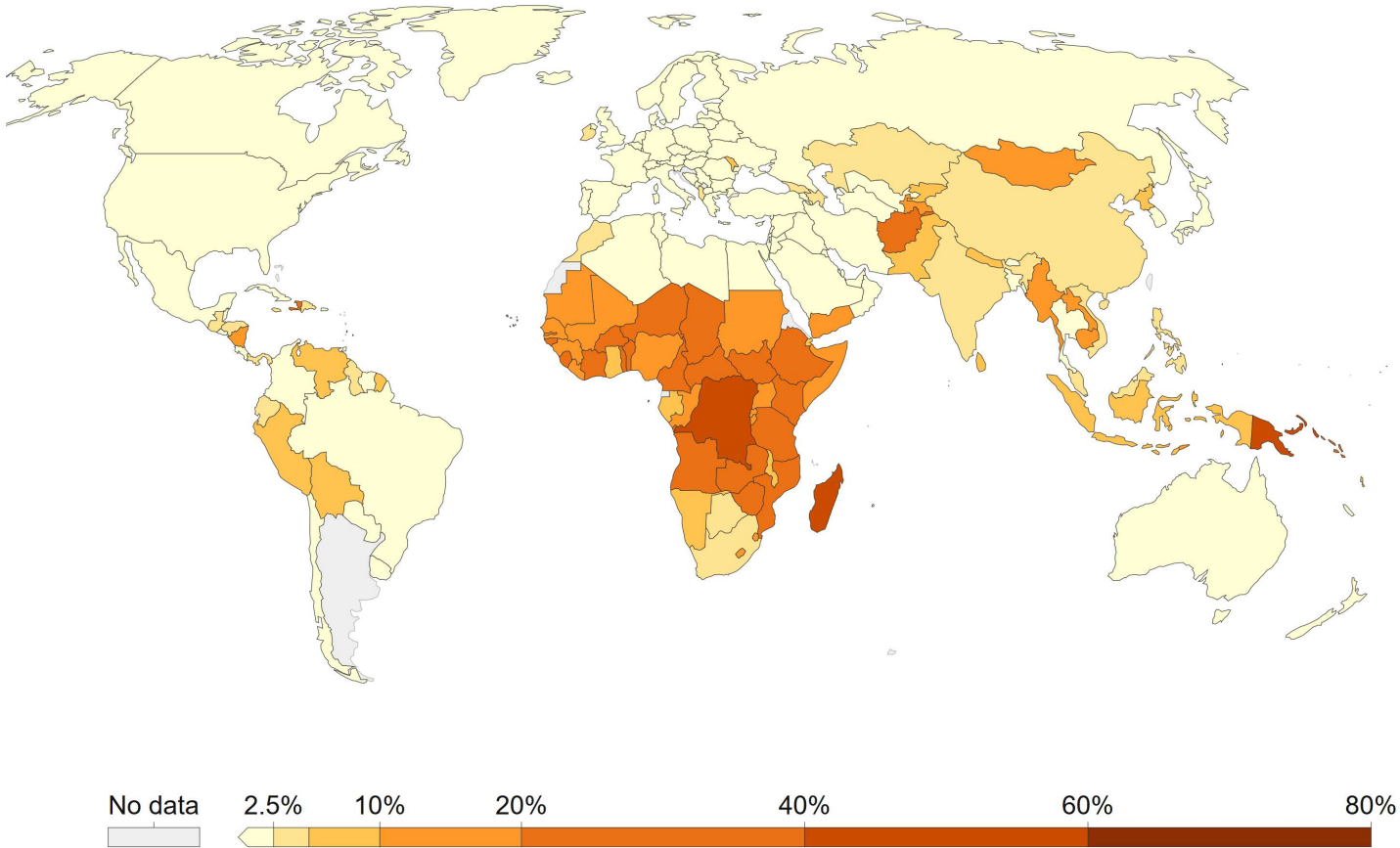
Question 16

16. Which type of map is this?

- topographic 1
- choropleth 2
- cadastral 3
- political 4

Share of the population without access to an improved water source, 2020

© Our World in Data, CC BY





## Question 17

**17. In 2020 approximately 2 billion of the world's 7.8 billion people did not have access to safely managed drinking water.**

**Approximately what percentage of the world's population was that?**

16% 1

26% 2

36% 3

46% 4

## Question 18

**18. Classify the liveability factors below as to whether they can easily be measured quantitatively (in numbers) or are usually measured qualitatively (in words).**

*Choose the answers from the drop-down menus.*

Liveability factor	Measurement
feelings of community connection	<input type="text" value="qualitative"/>
environmental quality	<input type="text" value="quantitative"/>
infrastructure	<input type="text" value="quantitative"/>
traditional and spiritual associations	<input type="text" value="qualitative"/>
climate	<input type="text" value="quantitative"/>

## Question 19

**19. Using the table, how many cities in Oceania were ranked among the top 10 liveable cities in 2021?**

*Enter the number in the box.*

countries

*Most liveable cities, 2021*

*Source: EIU Global Liveability Index*

Rank	City
1	Auckland, New Zealand
2	Osaka, Japan
3	Adelaide, Australia
4	Wellington, New Zealand
5	Tokyo, Japan
6	Perth, Australia
7	Zurich, Switzerland
8	Geneva, Switzerland
9	Melbourne, Australia
10	Brisbane, Australia

Question 20

20. Using the map, where do most Australians live?

along the west coast 1

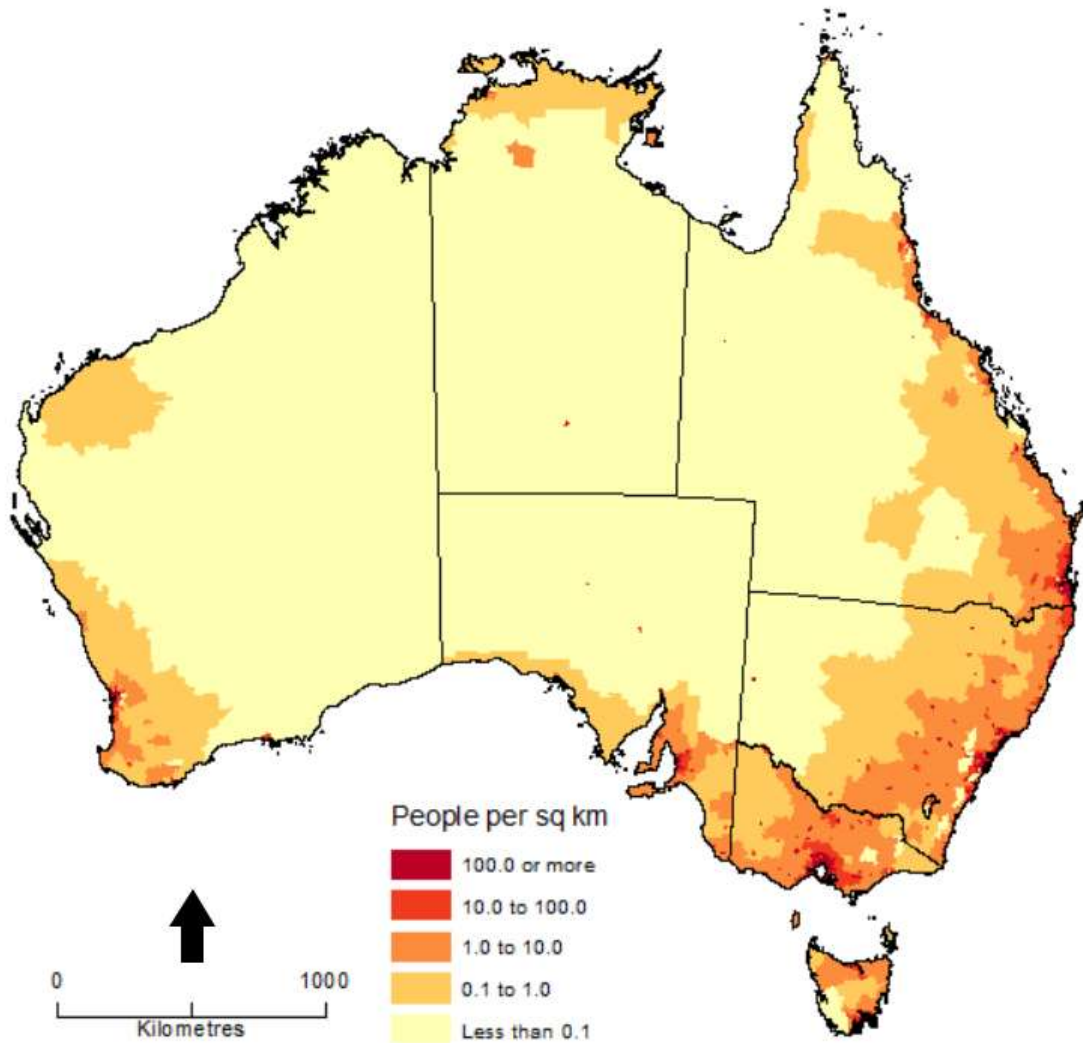
in the far north 2

in the centre 3

along the east coast 4

Population density, Australia, June 2018

© Commonwealth of Australia, Australian Bureau of Statistics



## Question 21

21. Which three of these factors contributed to the population distribution shown in the map?

Select ALL correct options

more temperate climate

1

availability of space to expand

2

proximity to job opportunities

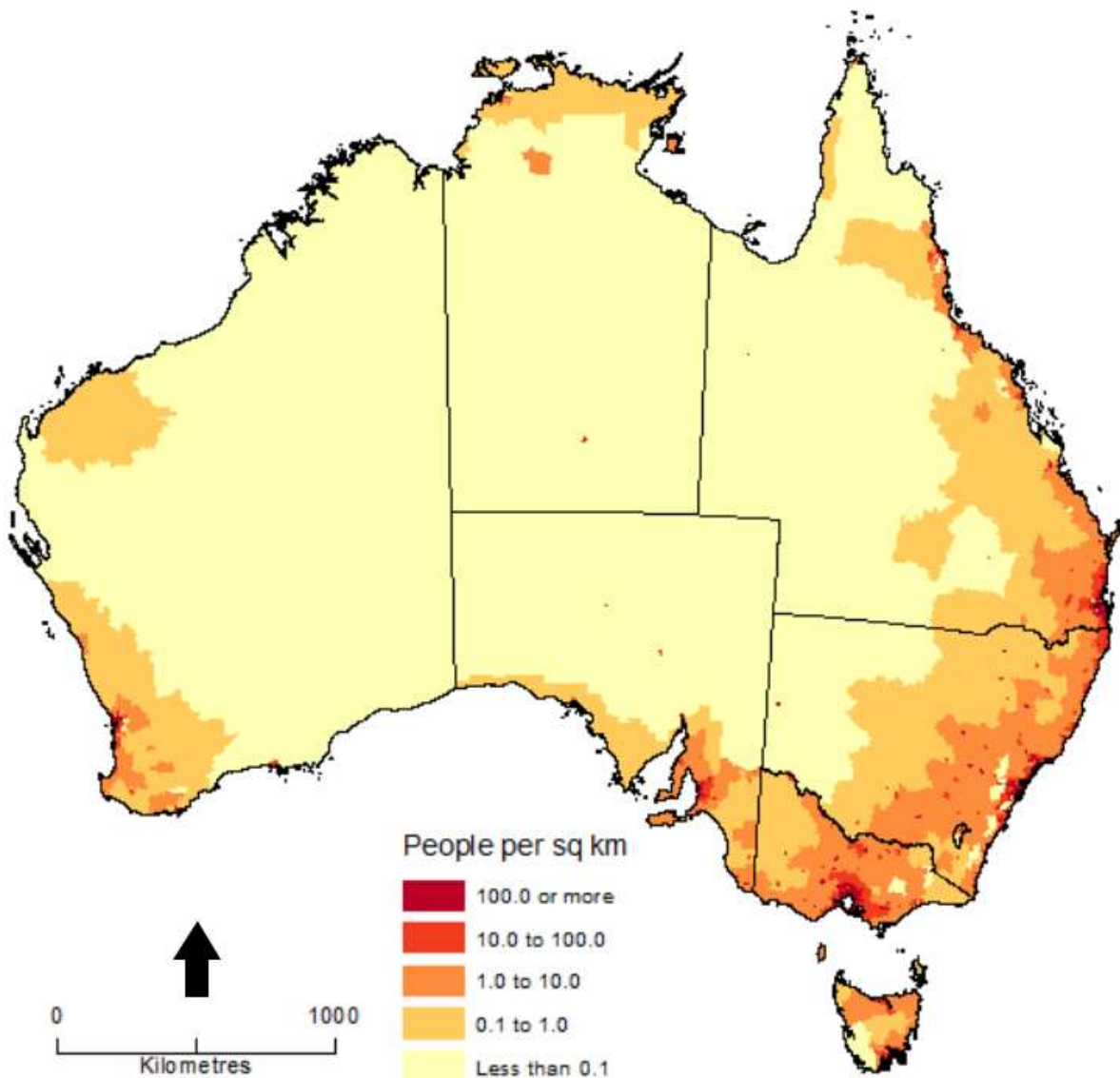
3

availability of water resources

4

Population density, Australia, June 2018

© Commonwealth of Australia, Australian Bureau of Statistics



Question 22

**22. Which phenomenon is illustrated in the satellite image animation of western Sydney?**

*Choose the answer from the drop-down menu.*

The animation represents

[\(File loaded separately - Sydney\\_Landsat.gif\)](#)

Western Sydney, 1991, 2002, 2019

Source images © U.S. Geological Survey

- edge expansion
- rural-urban migration
- tree change
- urban sprawl



## Question 23

23. Which is the most sustainable and efficient transport strategy to address impacts arising from the changes seen in the animation?

public transport

1

walking

2

private cars

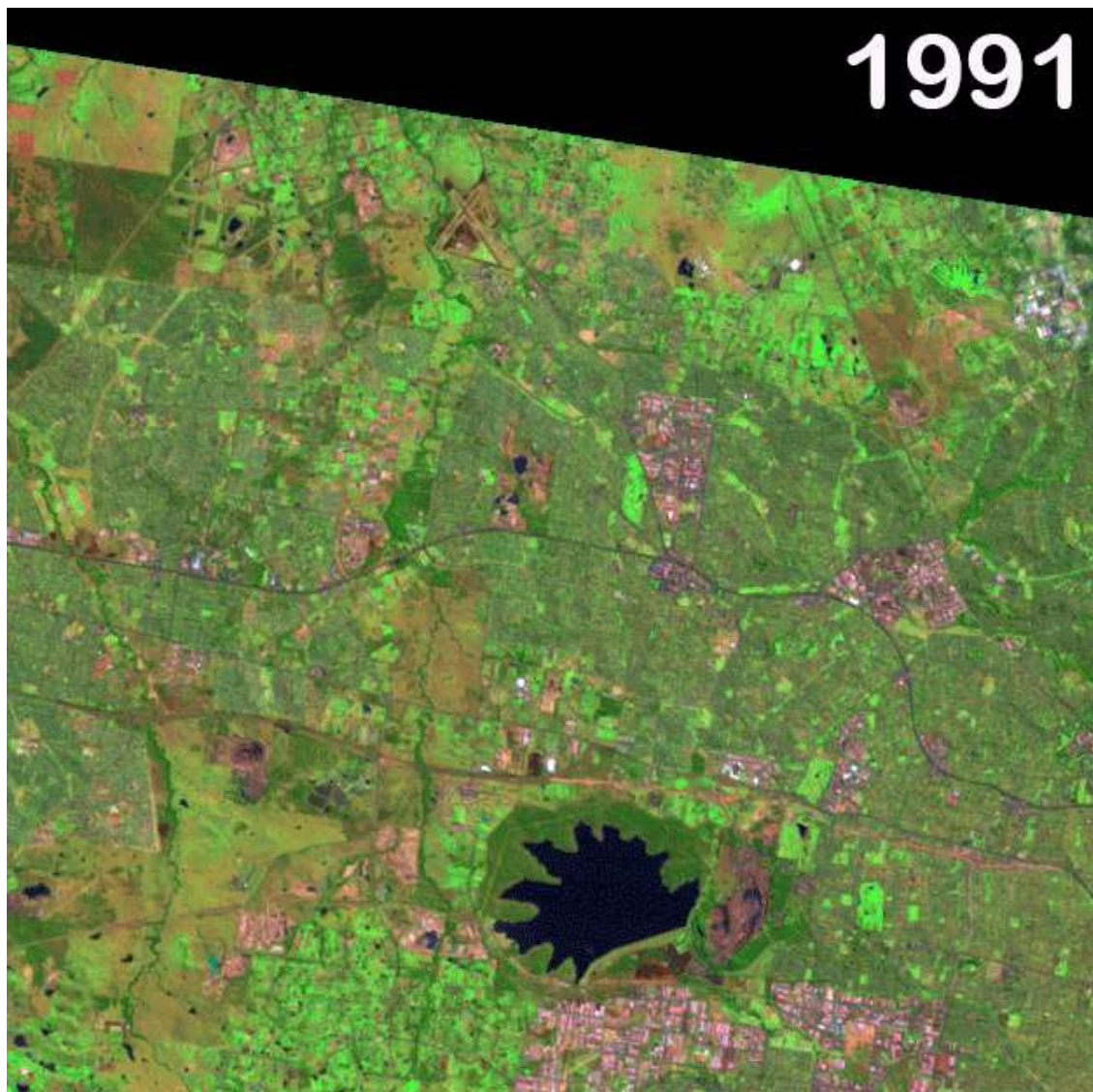
3

ride-share service

4

Western Sydney, 1991, 2002, 2019

Source images © U.S. Geological Survey



Question 24

24. Using the map, from where did the City of Sydney receive the greatest net increase of residents?

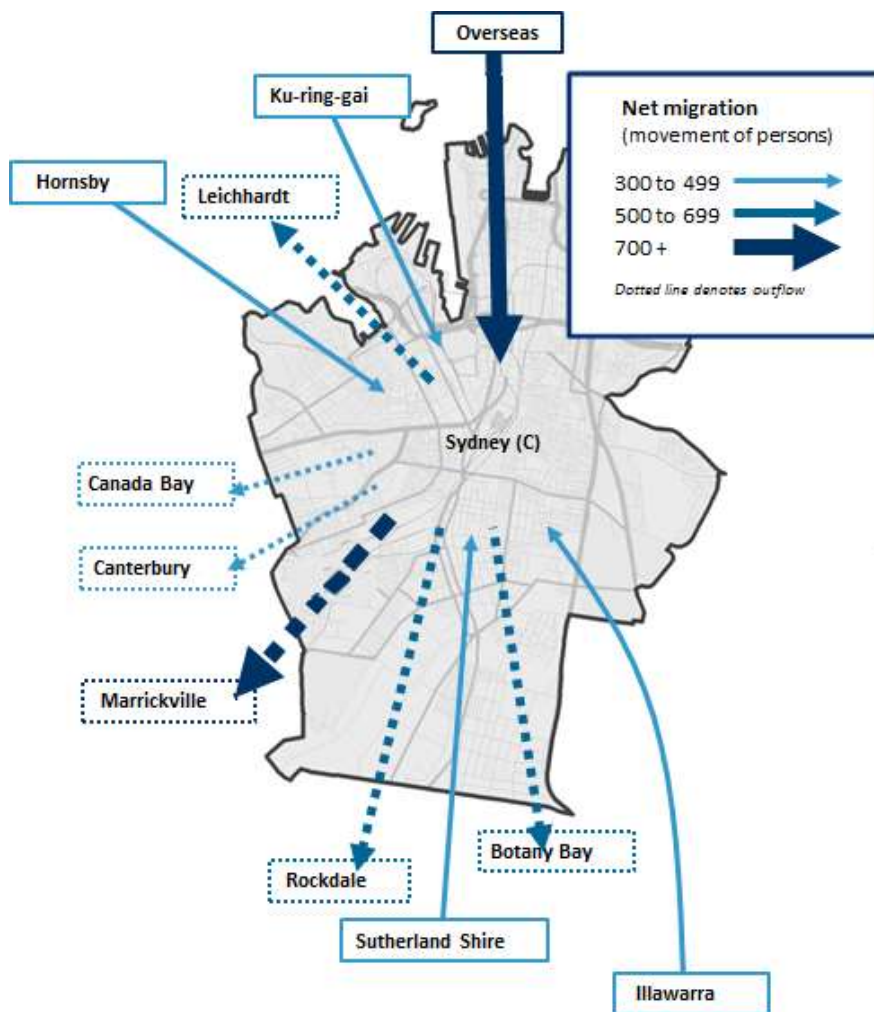
Choose the answer from the drop-down menu.

The greatest net increase was from

- Marrickville
- Hornsby
- Overseas
- Illawarra

Migration flows, City of Sydney, 2011-2013

© .id (informed decisions)





Question 25

**25. What is the most likely reason for the migration flow in the 20-24 years age group, as seen in the graph?**

Students are moving to the City of Sydney to be close to its two universities.

1

The City of Sydney has high quality health facilities.

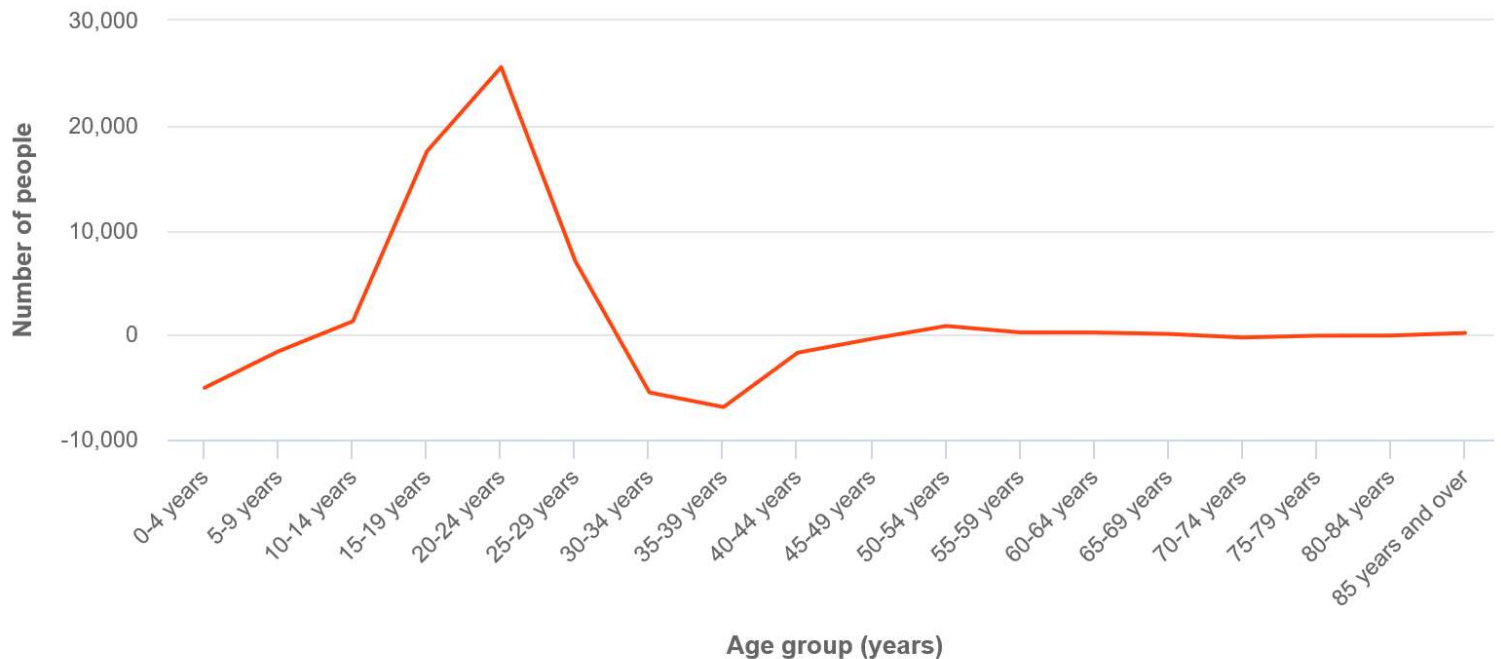
The City of Sydney is a well-known tourist destination.

3

People moving to the City of Sydney have many dependants aged 20-24.

Net migration by age group, City of Sydney, 2016-2021

© .id (informed decisions)



## Question 26

26. Which biome has been cleared in the area shown in the photo?

deciduous forest 1

rainforest 2

coniferous forest 3

shrubland 4

*Land clearing for oil palm plantation, Sabah, Malaysia*

© Mongabay.com



## Question 27

27. Which of these geographical concepts is best illustrated in the photo?

scale 1

change 2

place 3

space 4

*Land clearing for oil palm plantation, Sabah, Malaysia*

© Mongabay.com



## Question 28

**28. Watch the video. In which year was more land in northern Australia affected by fires?**

2004 1

2019 2

[Video loaded separately - see North\\_Aust\\_HotSpots\\_edited.mp4](#)

*A comparison of two extreme fire condition years in Northern Australia*

*© Charles Darwin University; North Australia and Rangelands Fire Information*

## Question 29

**29. Using the video, in which month in 2004 was the most land burnt in northern Australia?**

September

1

October

2

November

3

December

4

*A comparison of two extreme fire condition years in Northern Australia*

*© Charles Darwin University; North Australia and Rangelands Fire Information*

## Question 30

**30. Australia's First Nations peoples have used fire as a management tool for their country for thousands of years. Which word best describes their approach to land management?**

**custodial** 1

destructive 2

vigilant 3

careful 4