



AUSTRALIAN GEOGRAPHY COMPETITION

2023 Year 12

Welcome to the 2023 Australian Geography Competition!

You have 30 minutes to complete 40 questions.

NOTE: Due to the size of some graphics, you may need to scroll down the page to see the complete graphic.

Some questions require the use of a ruler or calculator. To use, click on the icon at the top right of the screen. To turn off, click the icon again.

If you want to enlarge a graphic or text, click on the magnifying glass at the top left of the screen.

There is a timer count-down at the top left of the screen.

The flag button at the bottom right of the screen can be used as a reminder for a question you want to come back to. On the question overview page you can see which questions you flagged.

The tiles button in the top middle of the screen next to the question number takes you to the question overview.

The question overview shows a summary of questions not started, completed or flagged.

Progress summary

Show all	1	Answered	3	Not answered	36	Not read	1	Flagged
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Questions

Click a number to go to that question

1 2 3 4 5 6 7 8 9

Supported by

Australian Government Department of Education, THE UNIVERSITY OF MELBOURNE, UNSW SYDNEY, MONASH University, THE UNIVERSITY OF QUEENSLAND AUSTRALIA, Curtin University, Australian Institute for Disaster Resilience

Good luck!

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*note: on a question where this is more than one drop down to be answered, and only one list is visible, all answer options are the same for each of the drop downs



Question 1 of 40 




Problem in farming area

© NSW DPI

Which of these human activities is most likely to have caused the problem shown in the image?

- building fences and gates
- anthropogenic climate change
- planting improved pasture grasses
- clearing deep-rooted native vegetation

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Question 2 of 40 



Problem in farming area

© NSW DPI

Which of these is a suitable response to the problem shown in the image?


- planting salt tolerant plants, e.g. saltbush
- ploughing the land to break the surface
- planting rows of pine trees
- irrigating the land more intensively

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Question 3 of 40



Problem in farming area © NSW DPI

Which type of image is this?


- aerial
- satellite
- terrestrial
- macro

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Question 4 of 40

Choose the drop-down text that correctly completes the sentence.

The land use change shown in these images is an example of _____.



Sahara Desert

16 August 2021

Land use change © NASA JPL

- land and soil degradation
- expansion of agriculture
- land reclamation
- desertification


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Question 5 of 40

Drag and drop the country name that correctly completes the sentence.

These images are of .

Egypt **Republic of the Congo** **Somalia** **Tanzania**



Sahara Desert


25 July 1984

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Question 6 of 40

A geography class from the local high school is planning a field trip to examine any changes to biodiversity that may have occurred here between 1984 and 2021. Which of these field techniques would be most useful to them in their study?

urban sampling drawing cross sections census analysis dune transects



Sahara Desert

16 August 2021

Land use change © NASA JPL

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The circular pattern in the close-up of the land use change image is of:

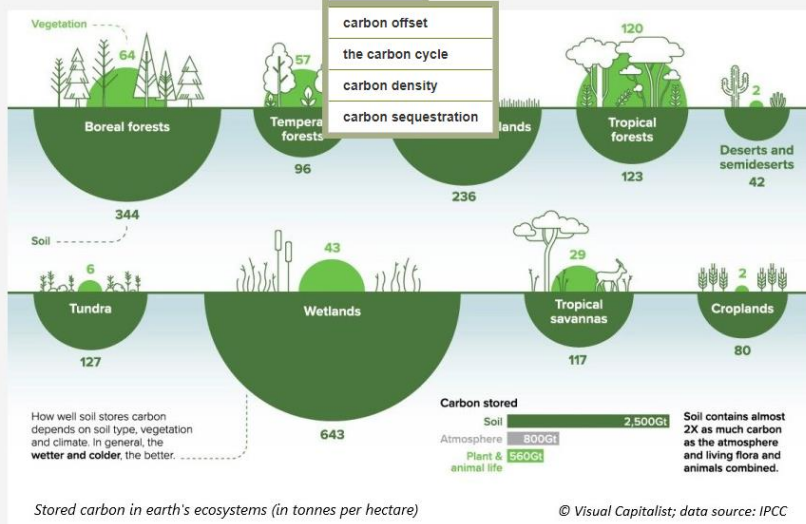
- centre-pivot irrigation
- date palm plantations
- traditional round houses
- crop circles



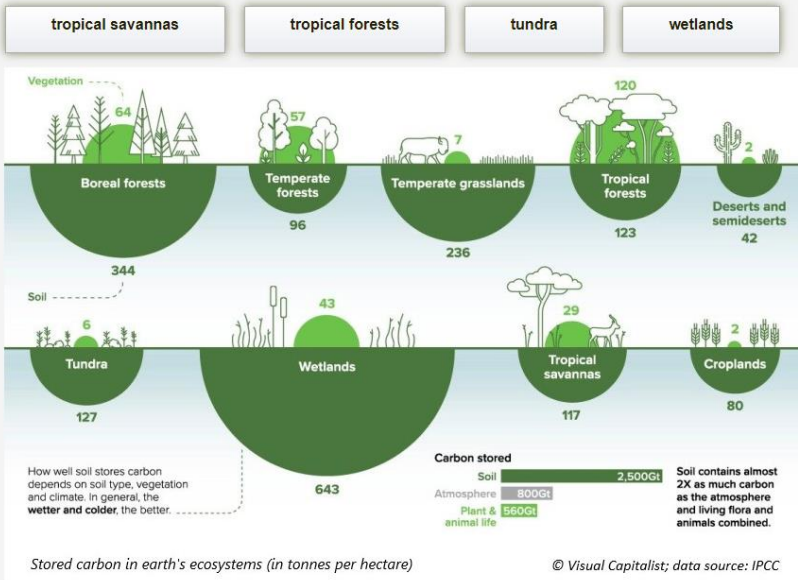
Close-up of land-use change image © NASA JPL

Choose the drop-down text that correctly completes the sentence.

The infographic below presents information on

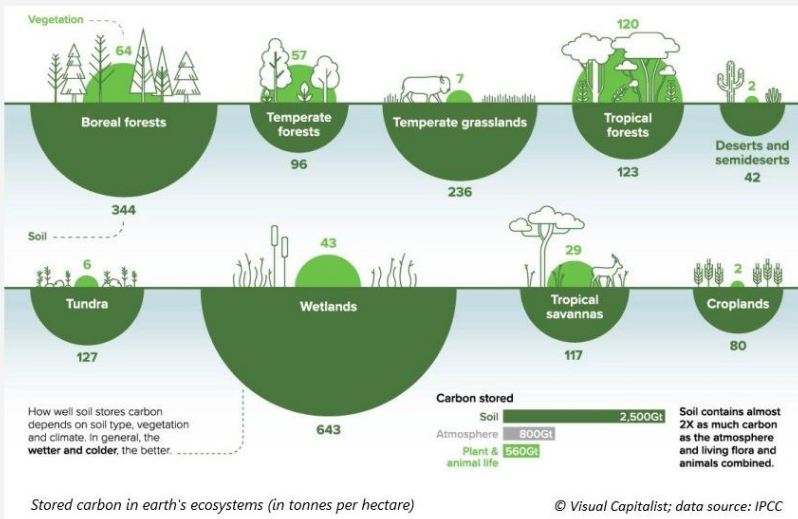


Using the data in the infographic, drag these biome names into the correct order from most carbon storage on the left to least on the right.



Why do boreal forests store more carbon than tropical forests?

- Boreal forests are spread over a larger area.
- There is more logging in tropical forests for their valuable timber.
- Biodiversity is high in boreal forests.
- Cold temperatures delay decomposition of dead biomass.

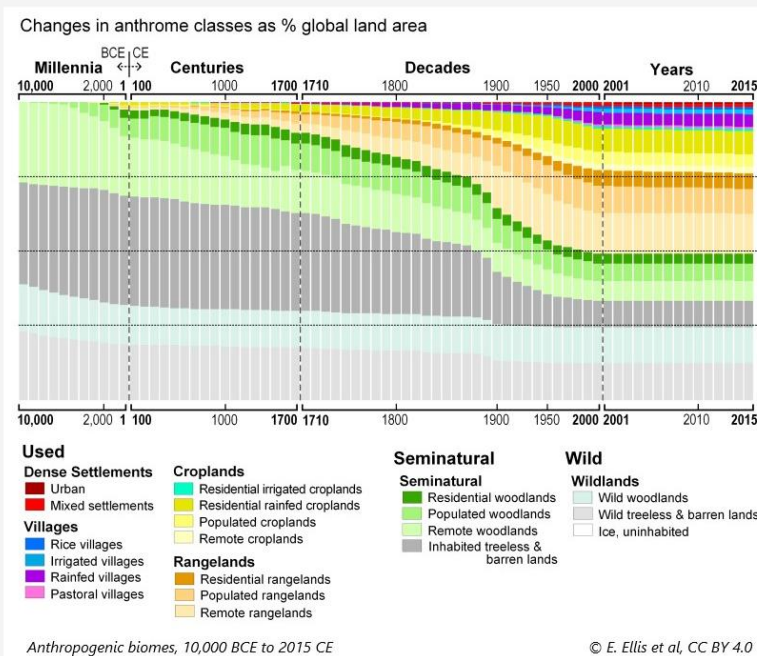


Which of these processes release carbon into the atmosphere? Select all that apply.

- burning off
- deforestation
- photosynthesis
- plant respiration

Using the graph, which of these biomes has reduced the most in area since 1800?

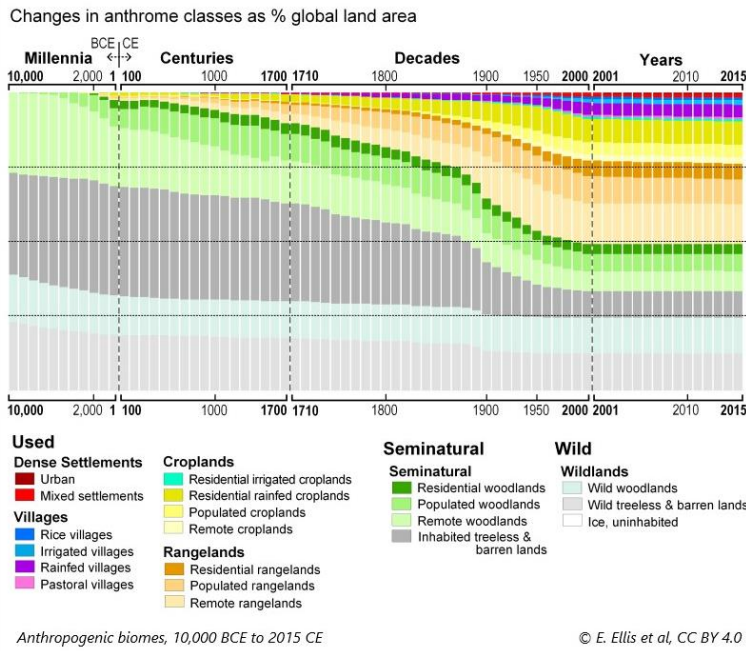
- residential rainfed croplands
- residential woodlands
- populated woodlands
- rainfed villages





Using the graph, approximately what percentage of the earth's land area was covered in seminatural biomes in 2015?

Enter your answer as a whole number in the box. %



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Which of these best defines the word 'anthrome'?

- a major vegetation community that is the result of sustained human activity
- a major ecosystem that has been replaced by human settlements
- a biome whose area is artificially constrained by human-made boundaries
- a major terrestrial ecosystem that is found across different continents

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Drag and drop the captions that best match the four photos below.

Remote rangeland

Residential irrigated cropland

Rice village

Pastoral village

Residential rainfed cropland

Remote cropland



© B. Morin, CC BY SA 4.0



© C Goodwin, CC BY SA 3.0



© A. Smith, CC BY SA 2.0



© J. Astesana, CC BY SA 2.0

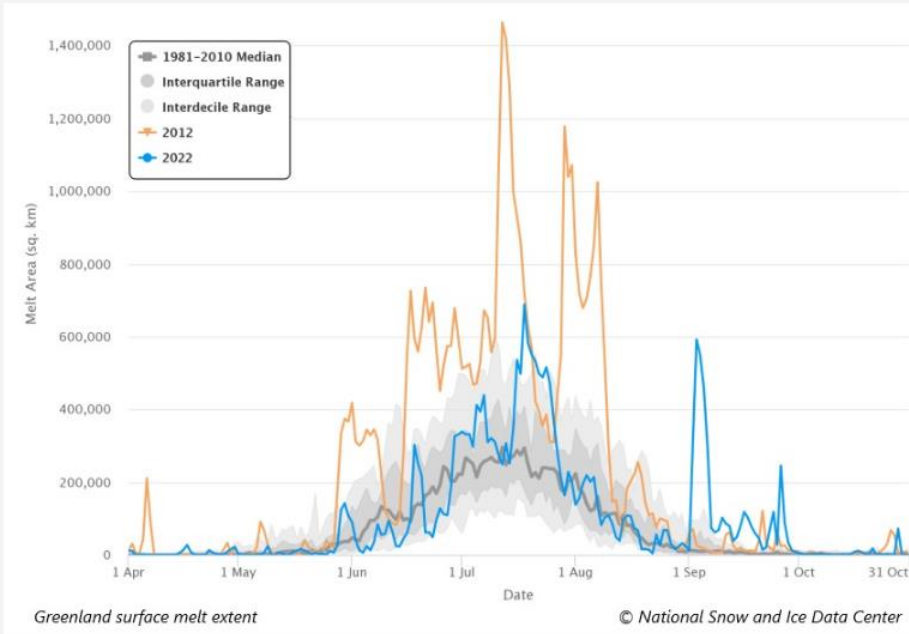
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Using the graph below, which of these statements is true?

- The extent of ice melt in 2022 was greater than in 2012.
- The extent of ice melt in Greenland is naturally variable.
- The interdecile range is by definition smaller than the interquartile range.
- The extent of the ice melt increases each year.



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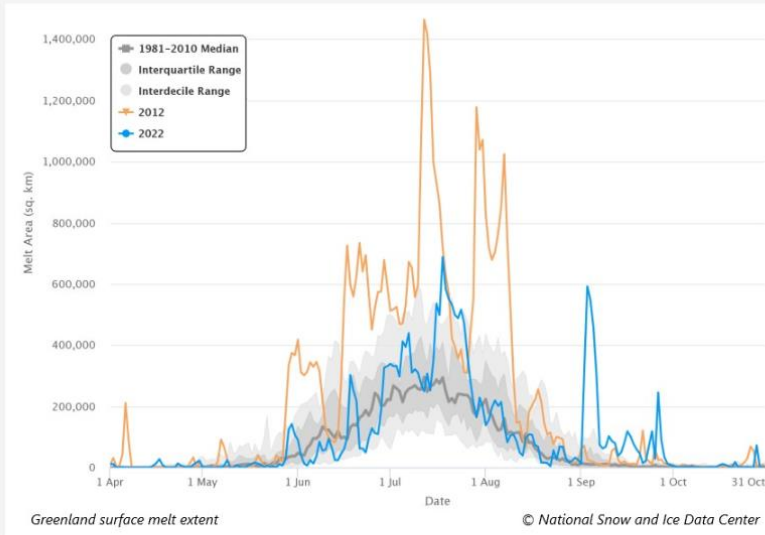
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What are some of the effects in Greenland of the trend shown in the graph? Select all that apply.

- Mineral and hydrocarbon resources are becoming easier to exploit.
- Traditional hunting and fishing practices of the Inuit have been disrupted.
- Greenland's total land area is increasing.
- Increased sea ice is improving the polar bears' hunting in southern Greenland.

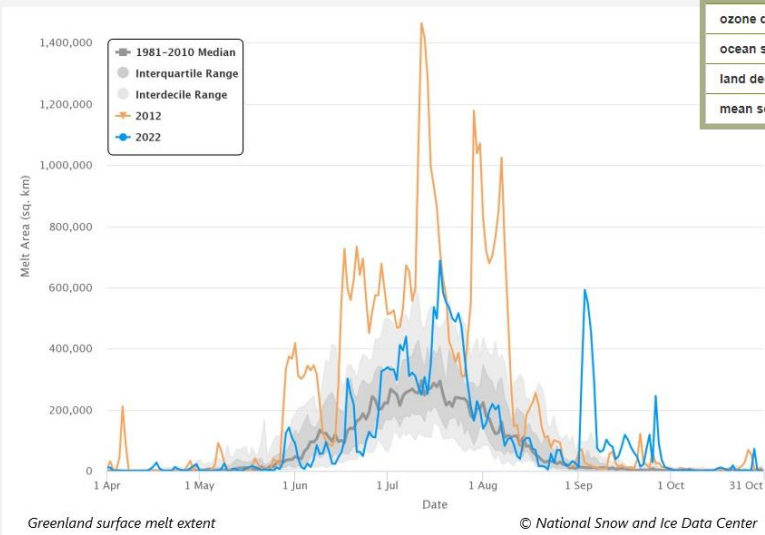


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Choose the drop-down text that correctly completes the sentence.

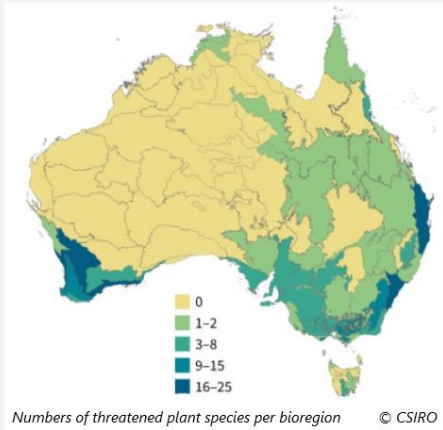
The trend shown in the graph is of interest to Pacific Island communities because it will lead to an increase in

- ozone depletion
- ocean salinity
- land degradation
- mean sea level





Question 19 of 40



Based on the map, which of these is the best predictor of high numbers of threatened plant species?

- close to population centres
- close to the coast
- located in the tropics
- located in high-rainfall areas

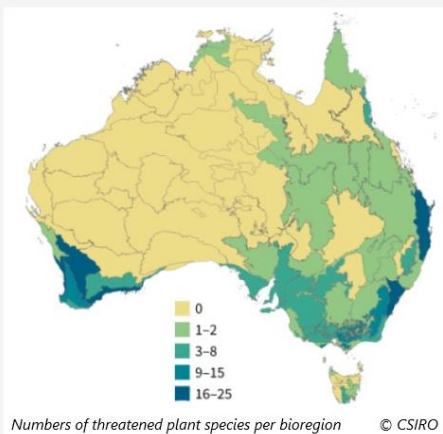
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Which of these is the best definition of bioregions, as shown in the map?

- an area that is drained by a single, distinct river system
- an area encompassed by local government boundaries
- a region with a distinctive agricultural use
- a region that shares common physical and ecological characteristics

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Question 21 of 40 


What is the main cause of Australian plants becoming threatened?

- habitat destruction
- climate change
- invasive species
- disease

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Aboriginal peoples in Australia commonly manipulated the land to enhance food availability through:

- controlled burning
- irrigation systems
- crop rotation
- contour ploughing

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Question 23 of 40

CSIRO has studied the wide-ranging benefits associated with Indigenous land management. Classify these benefits by dragging and dropping the appropriate text into the table.

	Cultural and sociopolitical	Economic	Environmental	Health and well-being
Category				
<input type="text"/>				
<input type="text"/>				
<input type="text"/>				
<input type="text"/>				
Benefit example				
				Better diet reducing lifestyle risk factors
				Support for intergenerational transfer of knowledge
				Creation of saleable carbon credits
				Lower rates of weed infestation


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Which of these is an environmental impact of the mine in the image?

major contribution to Australia's Gross Domestic Product
 alteration of surface water flows

contaminated run-off affecting marine biodiversity
 greenhouse gases released from the iron ore



Mount Whaleback iron ore mine
Source: NASA Earth Observatory

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Choose the drop-down word that correctly completes the sentence.

The residents of the settlement seen in the image have high average incomes. The main employment is classified as a _____ industry.



Mount Whaleback iron ore mine

Source: NASA Earth Observatory

- primary
- secondary
- tertiary
- quaternary

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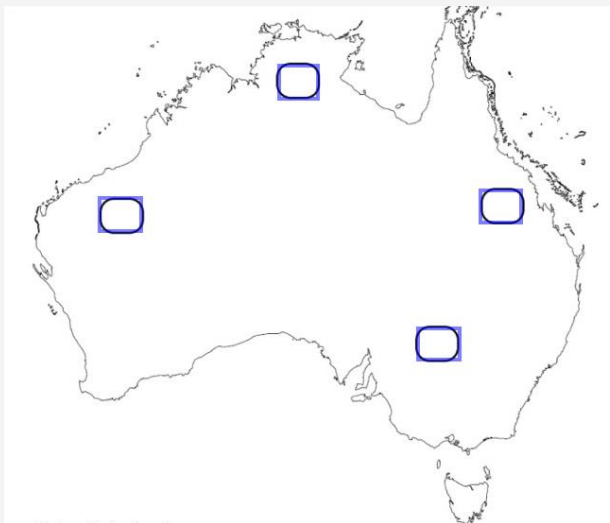
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The thumbnail image is of the iron ore mine from the previous question. Drag the thumbnail to one of the areas marked on the map to show its location in Australia.



Choice of mine location

Base map: © Commonwealth of Australia, Geoscience Australia, CC BY 3.0

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Question 27 of 40



This cartoon best demonstrates the concept of:

- international integration
- global distribution
- risk management
- social exclusion

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Question 28 of 40



Which of these statements best explains why some Australian companies have moved their information services to Asian countries such as China?

- It is cheaper than having their information services in Australia.
- More of their customers live in China.
- Chinese workers are better at answering questions than Australian workers.
- Levels of technology are higher in China than in Australia.

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For this question you may use the on-screen calculator. Click on the icon in the top right corner.

Using the data in the table below, what percentage of Australia's 2020 two-way trade was with China?

Round your answer to the nearest whole number and enter in the box. %

Australia's exports and imports of goods and services

© Austrade

Rank	Selected economies	2017	2018	2019	2020
1	China	183.5	214.8	251.3	244.8
2	US	68.3	74.0	81.0	72.9
3	Japan	72.0	85.7	86.7	66.5
4	Korea	55.3	41.0	41.3	34.8
5	UK	27.4	27.2	38.6	31.8
6	Singapore	25.3	32.0	33.2	27.0
7	India	27.6	30.4	29.2	24.4
8	New Zealand	27.6	29.3	31.1	23.7
9	Germany	21.0	23.2	22.9	21.2
10	Thailand	23.0	25.7	23.1	19.6
11	Malaysia	20.8	24.1	24.0	19.4
12	Taiwan	15.1	17.6	20.2	16.1
13	Vietnam	12.9	14.6	15.5	14.6
14	Indonesia	16.4	17.6	17.7	12.9
15	Hong Kong SAR	18.9	17.8	15.0	12.7
	Other economies	149.7	179.2	187.3	154.6
	Total all economies	764.8	854.4	918.0	796.9

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Are the statements below supported by the data in the table? Choose your answers from the drop-down text.

Statement

Supported/ Unsupported

Of Australia's top 5 trading partners, trade with the UK is growing at the fastest rate.

Eleven of Australia's top 15 trading partners are located in Asia.

Based on the trend in the table, Australia's trade with Korea will soon exceed that with Japan.

Australia's exports and imports of goods and services

Rank	Selected economies	2017	2018	2019	2020
1	China	183.5	214.8	251.3	244.8
2	US	68.3	74.0	81.0	72.9
3	Japan	72.0	85.7	86.7	66.5
4	Korea	55.3	41.0	41.3	34.8
5	UK	27.4	27.2	38.6	31.8
6	Singapore	25.3	32.0	33.2	27.0
7	India	27.6	30.4	29.2	24.4
8	New Zealand	27.6	29.3	31.1	23.7
9	Germany	21.0	23.2	22.9	21.2
10	Thailand	23.0	25.7	23.1	19.6
11	Malaysia	20.8	24.1	24.0	19.4
12	Taiwan	15.1	17.6	20.2	16.1
13	Vietnam	12.9	14.6	15.5	14.6
14	Indonesia	16.4	17.6	17.7	12.9
15	Hong Kong SAR	18.9	17.8	15.0	12.7
	Other economies	149.7	179.2	187.3	154.6
	Total all economies	764.8	854.4	918.0	796.9

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Between 2019 and 2020, Australia's trade declined with all its main trading partners. Which is the best explanation for this decline?

- an increase in trade tariffs
- Russia's invasion of Ukraine
- the COVID-19 pandemic
- Australian goods and services were displaced by those from other countries

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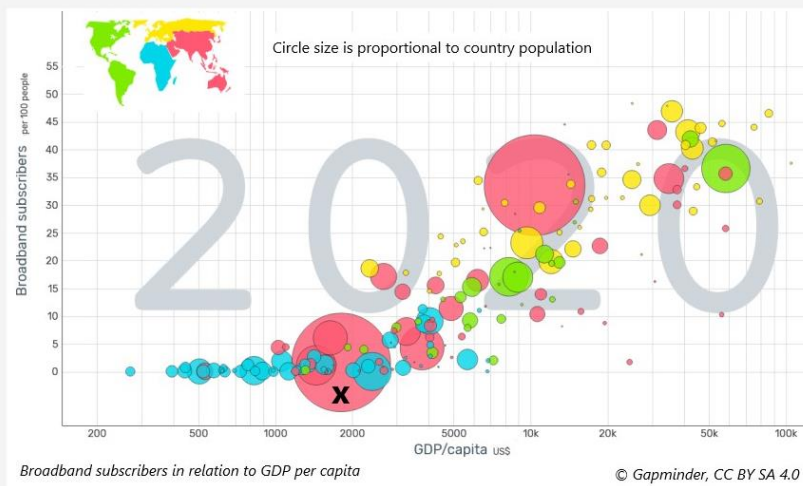


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The scatter plot below demonstrates which correlation between the number of broadband subscribers and GDP per capita?

- positive correlation
- negative correlation
- perfect correlation
- no correlation



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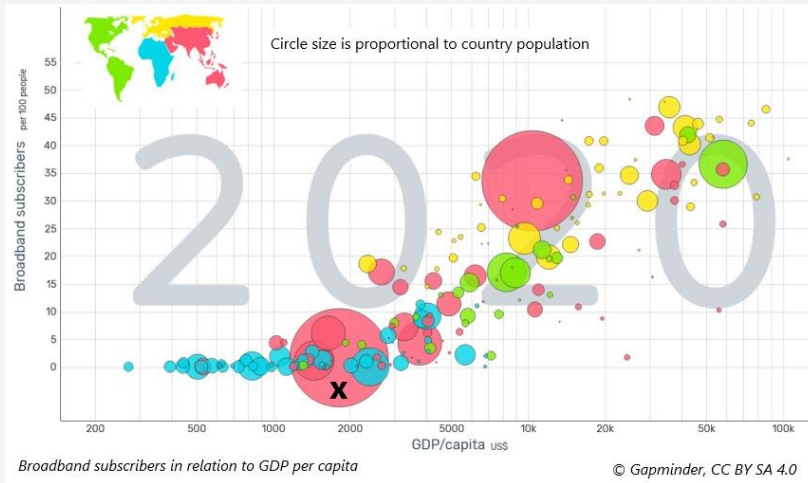
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Drag and drop the country name that correctly completes the sentence.

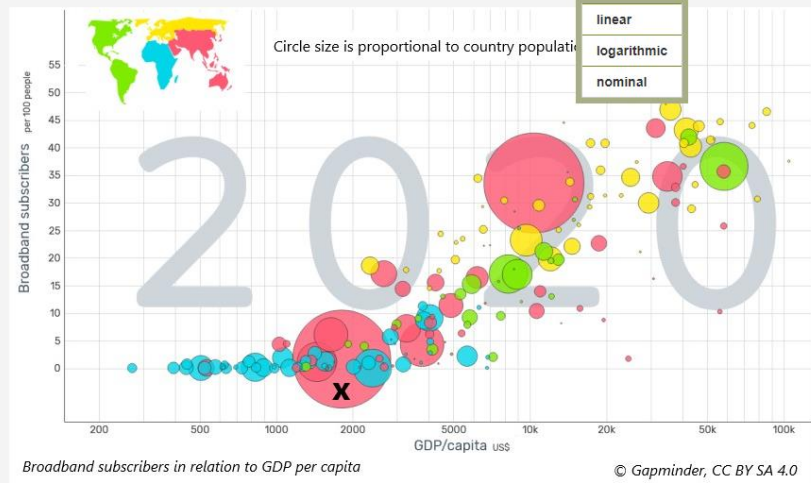
- Brazil
- China
- India
- United States

_____ is the country represented by the circle labelled X in the graph.



Choose the drop-down words that correctly complete the sentence.

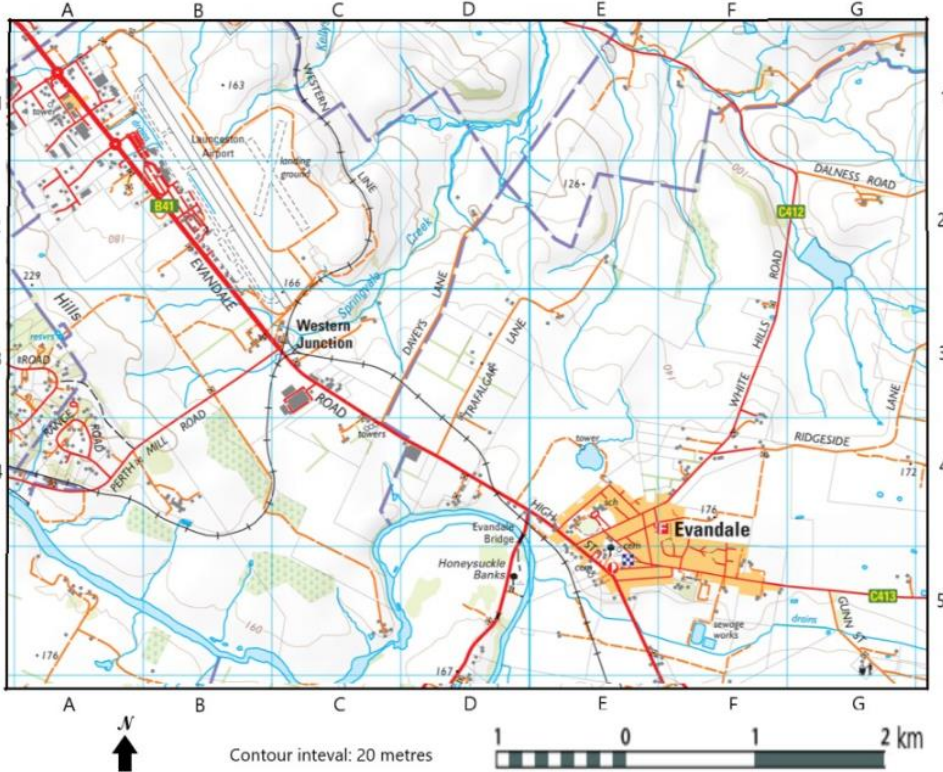
In the graph below the x axis uses a/an _____ scale and the y axis uses a/an _____ scale.



Drag and drop the number that correctly completes the sentence. You may need to scroll down to see all the map.

- 150 170 190 200

The plantation shown in grid square C5 on the map is approximately metres above sea level.



Extract of Perth 1: 50 000 map

© Tasmanian Government

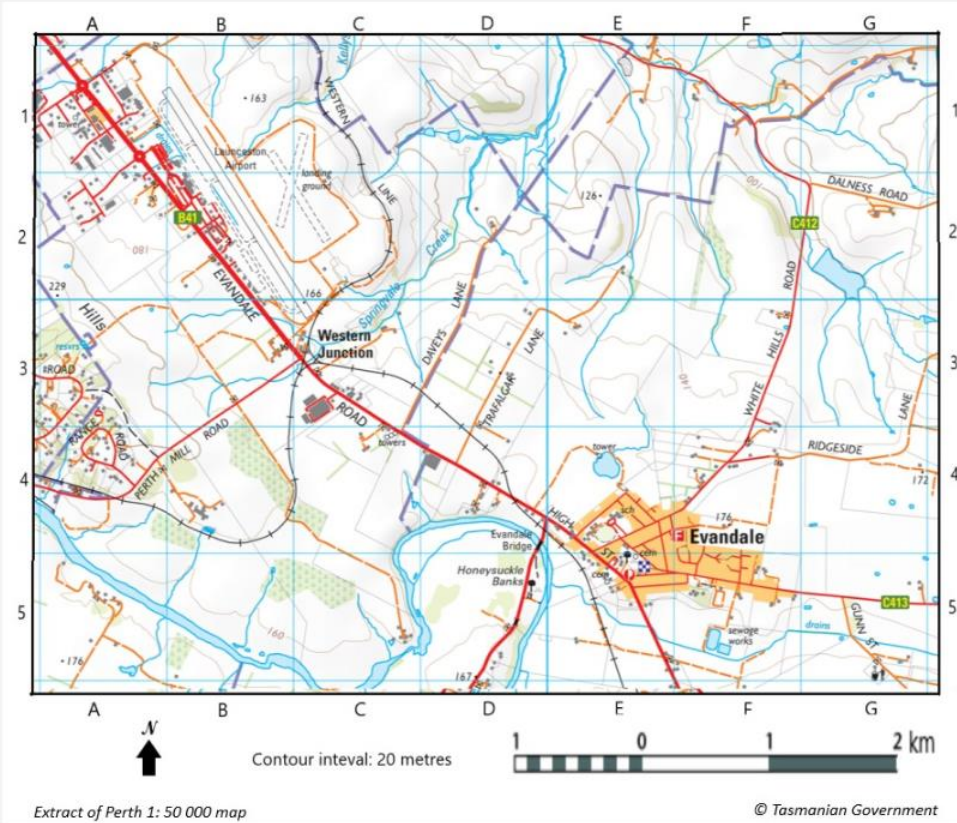
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Which of these is located in grid square G2 on the map?

- farm dam
 hydroelectric station
 lagoon
 swamp



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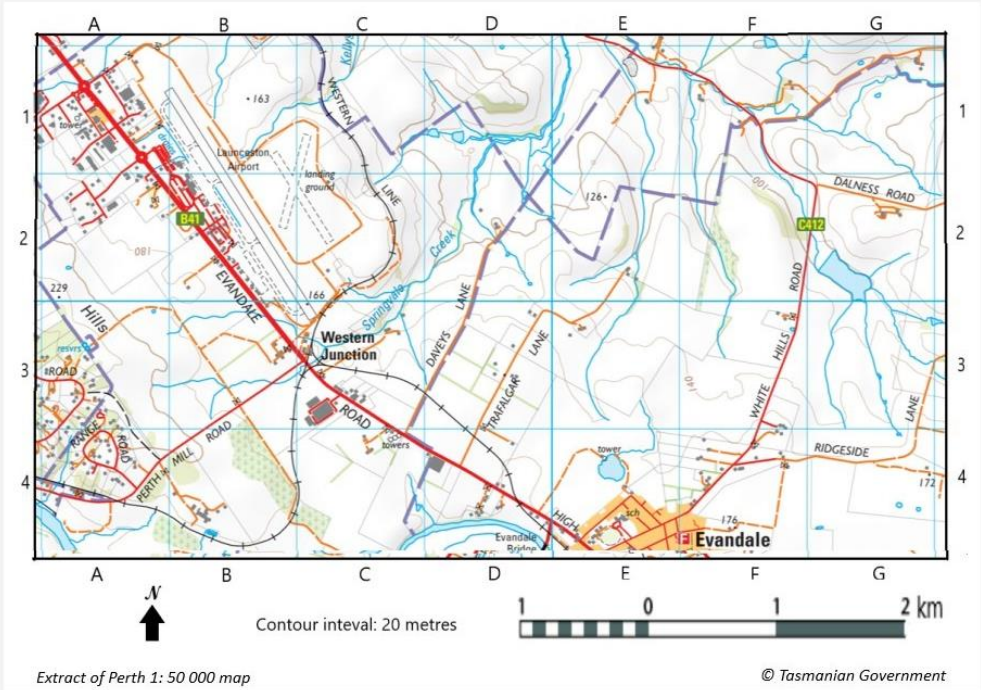
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Drag and drop the number that correctly completes the sentence. You may use the on-screen ruler - click on the symbol in the top right corner, drag and rotate it.

- 1.2 2.1 3.2 4.3

Using the map below, the length of Launceston Airport's main runway (see B1) is approximately km.



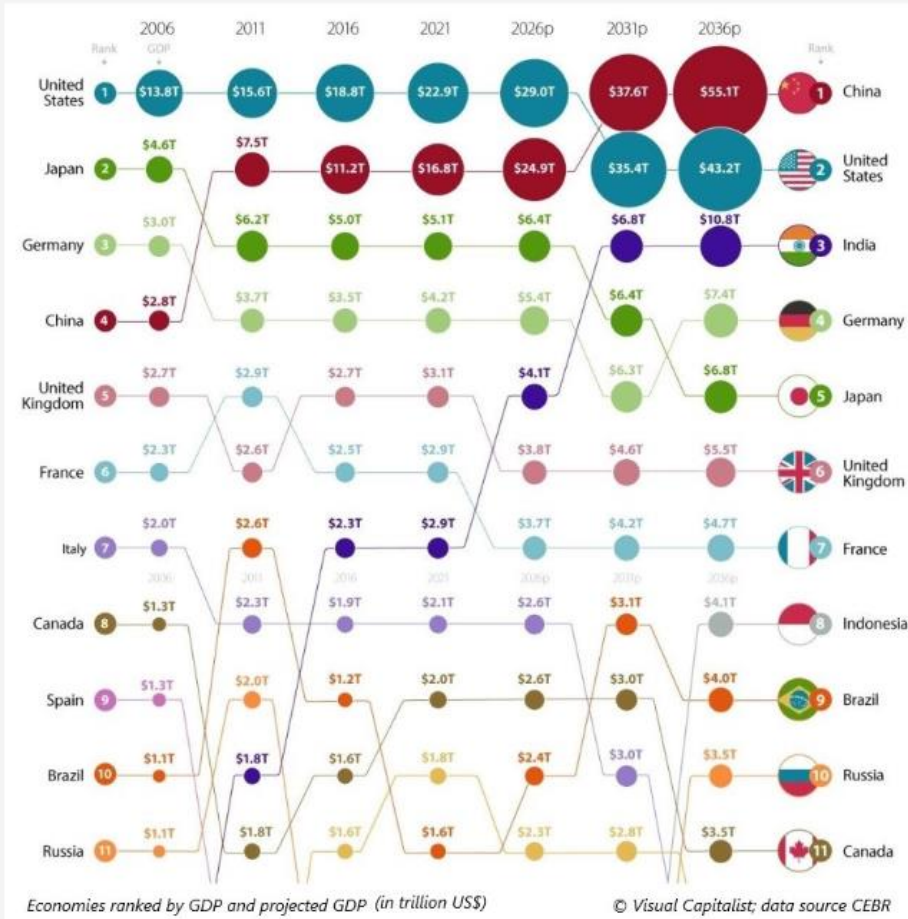
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Which of these hypotheses is supported by the data in this graph? (Scroll down to see all the graph.)

- that European countries are maintaining their dominance in the world economy
- that North American countries are increasing their dominance in the world economy
- that Asian countries are increasing their dominance in the world economy
- that there is little change in the relative dominance of Asian, European and North American countries



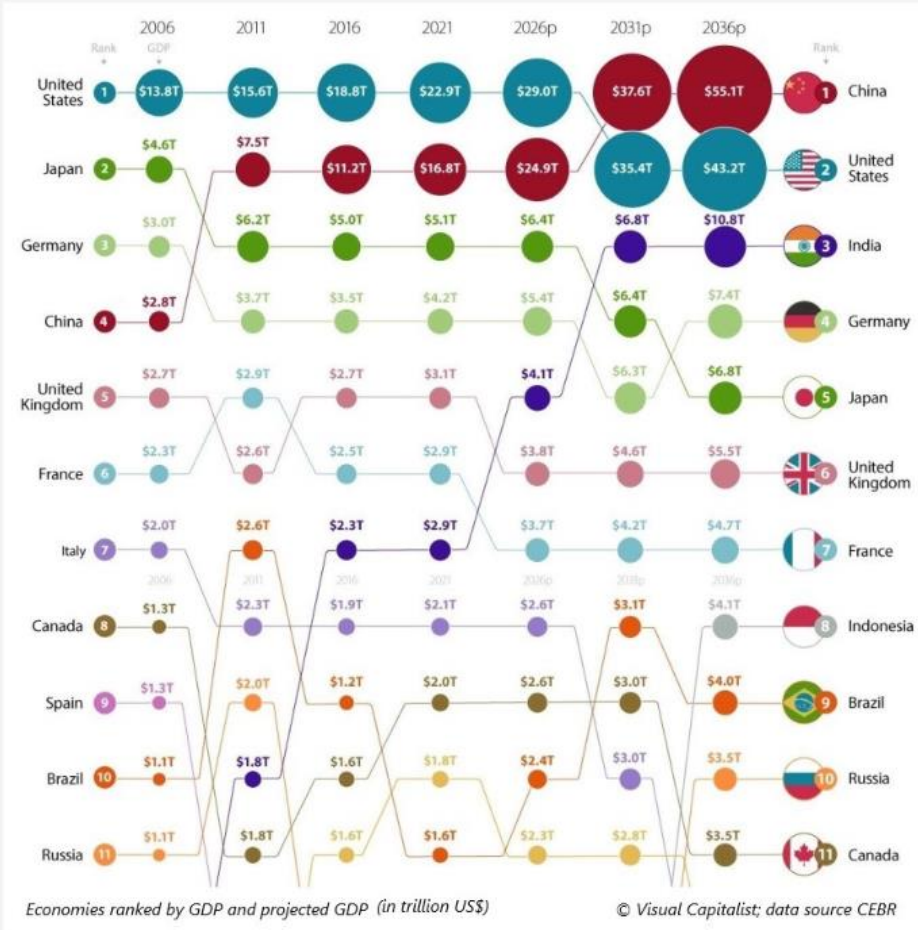
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Using the graph, the GDP of which of these countries is predicted to grow at the fastest rate between 2021 and 2036?

- Germany
 India
 United States
 Japan



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The G7 was established as a group of the seven democratic countries with the largest economies, and that criteria still applied in 2006. Based on the data in the graph, drag and drop the words that correctly complete the sentence below if the inclusion criteria had been maintained.

Canada China India Indonesia Italy

In 2016 should have been in the G7 and out.

