Distance and direction
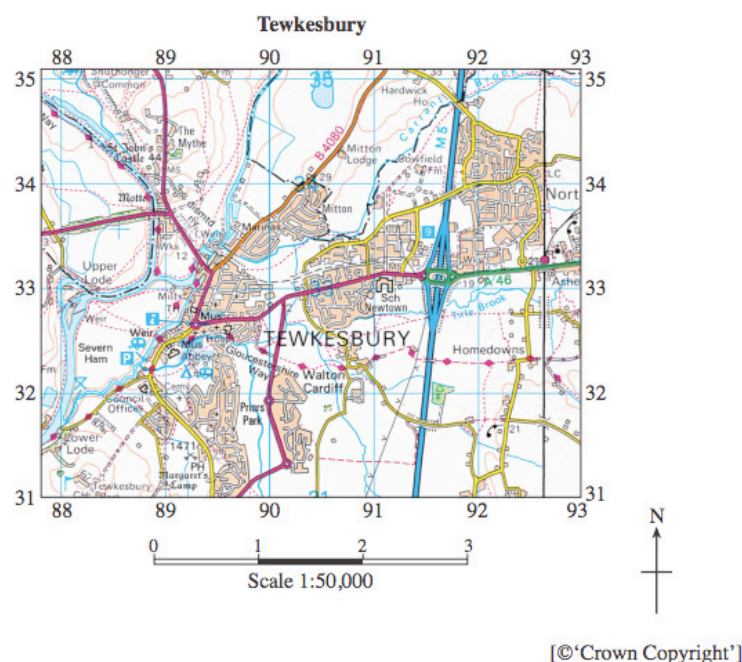
1. Study the OS map of Tewkesbury below. Answer the question that follows.
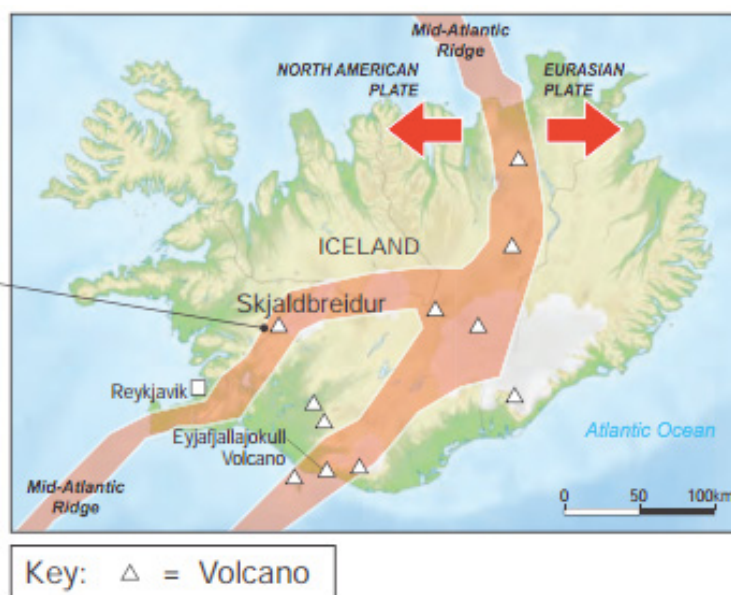

Tick (✓) **five** statements that are correct.

Statements	Tick (✓)
There is a river confluence at grid reference 908318.	
There is a river confluence at grid reference 889331.	✓
There is a river confluence at grid reference 927332.	
The River Severn flows from south-west to north-east.	
The River Severn flows from north-west to south-west.	✓
The weir is 0.5km NE of the council offices.	✓
The weir is 1km NE of the council offices.	
The weir is 0.5km south of the council offices.	
The M5 is 4.8km in length on the map.	
The M5 is 4.1km in length on the map.	✓
The M5 is 3.5km in length on the map.	
In the south-east the contours are close with the highest point being 44m.	
In the north-west the contours are far apart with the highest point being 21m.	
In the north-west the contours are close together with the highest point being 44m.	✓

Distance and direction

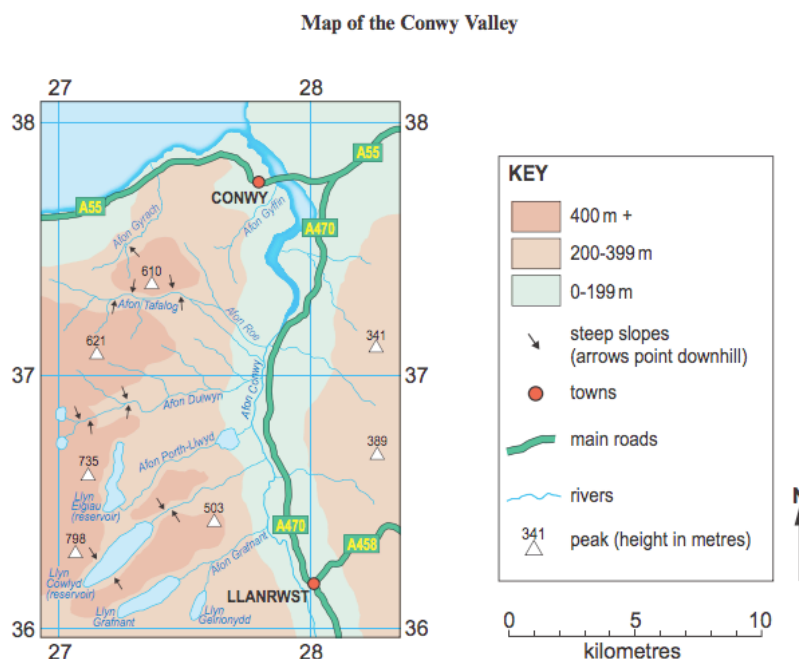**2. Study the map of Iceland below. Describe the location of Skjaldbreidur. Answer the question that follows.**

Skjaldbreidur

Key: △ = Volcano

Tick (✔) **five** statements that are correct.

Statements	Tick (✔)
North-east of Reykjavik.	✔
South-west of Reykjavik.	
North of Reykjavik.	
Skjaldbreidur is 110km West of Eyjafjallajokull volcano.	
Skjaldbreidur is 110km North West of Eyjafjallajokull volcano.	✔
Skjaldbreidur is 90km North West of Eyjafjallajokull volcano.	
The plate margins are moving towards each other.	
The plate margins are moving apart from each other.	✔
Reykjavik is 50km from Skjaldbreidur.	
Reykjavik is 75km from Skjaldbreidur.	✔
Reykjavik is 100km from Skjaldbreidur.	
Skjaldbreidur is the volcano found on its own in the west.	✔
Skjaldbreidur is clustered in the south.	
Skjaldbreidur is clustered in the west.	

Distance and direction

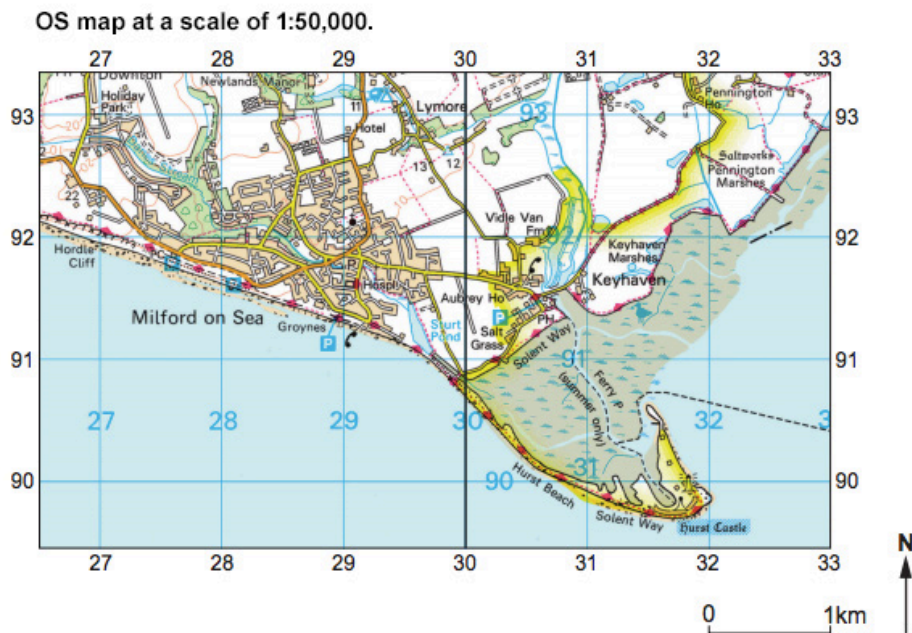**3. Study the OS map of Conwy below. Answer the question that follows.**

Map of the Conwy Valley

Tick (✓) **five** statements that are correct.

Statements	Tick (✓)
The highest point on the map is 735m.	
The highest point on the map is 798m.	✓
The highest point on the map is 621m.	
The Afon Conwy flows south to north.	✓
The Afon Conwy flows north to south.	
The Afon Conwy flows east to west.	
Llyn Cowlyd (reservoir) is 3km in length.	
Llyn Cowlyd (reservoir) is 3.5km in length.	
Llyn Cowlyd (reservoir) is 4km in length.	✓
Afon Porth-Llwyd is 6km from source to the river Conwy confluence.	✓
Afon Porth-Llwyd is 4km from source to the river Conwy confluence.	
Afon Porth-Llwyd is 5km from source to the river Conwy confluence.	
Llanrwst is 16km south of Conwy.	✓
Llanrwst is 12km north of Conwy.	
Llanrwst is 16km orth of Conwy.	

Distance and direction

4. Study the OS map of Milford on Sea below. Answer the question that follows.

OS map at a scale of 1:50,000.

Tick (✔) **five** statements that are correct.

Statements	Tick (✔)
The Hurst Spit is approx. 6km in length to the curve.	
The Hurst Spit is approx. 2.5km in length to the curve.	✔
The Hurst Spit is approx. 10km in length to the curve.	
There are 2 former curves on the spit.	
There are 7 former curves on the spit.	
There are 4 former curves on the spit.	✔
The Holiday Park is found in grid square 2793.	✔
The Holiday Park is found in grid square 9327.	
The Holiday Park is found in grid square 2792.	
The Hospital is at 295911.	
The Hospital is at 291915.	✔
The Hospital is at 281915.	
Longshore drift is moving east to west.	
Longshore drift is moving west to east.	✔

Distance and direction

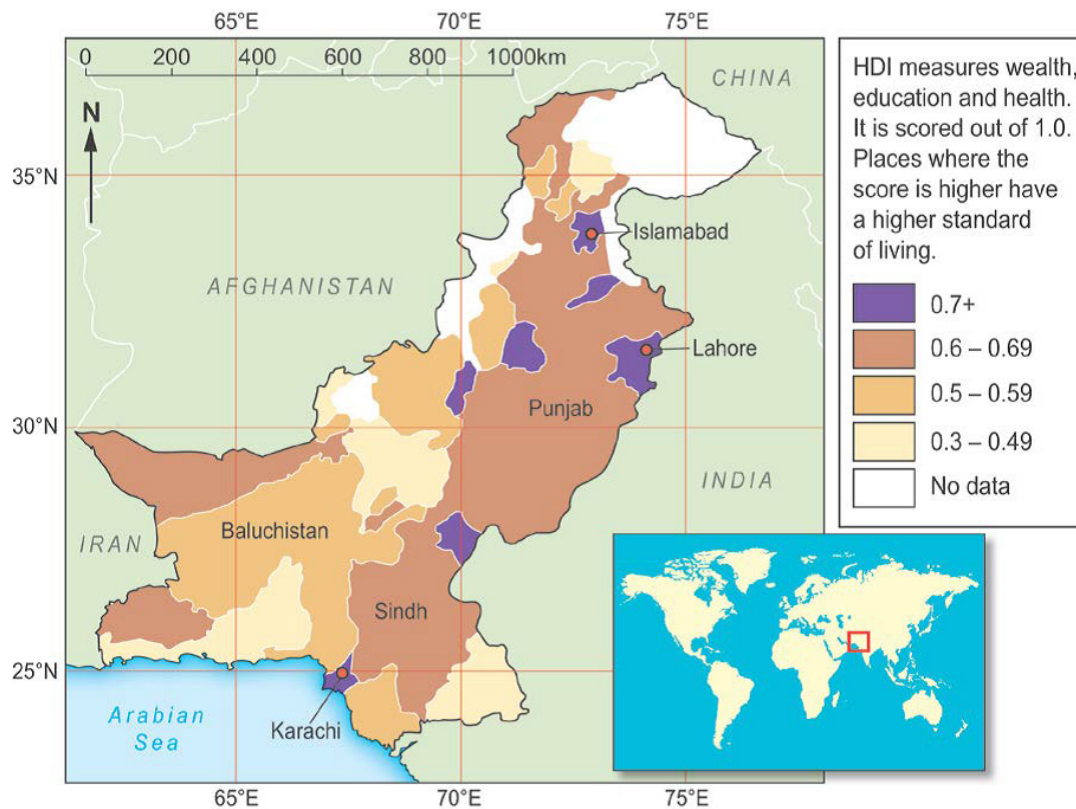**5. Study the map of Greece, a Mediterranean country. Answer the question that follows.**

Tick (✔) **five** statements that are correct.

Statements	Tick (✔)
Athens is the furthest east of all the identified places.	✔
Athens is the furthest west of all the identified places.	
Cythera is located 190km approximately, to the south-west of Athens.	✔
Cythera is located 100km approximately, to the east of Athens.	
Cythera is located 210km approximately, to the south of Athens.	
The islands of Corfu and Ithaca are located in the Ionian Sea north of Cephalonia.	✔
The islands of Corfu and Zakynthos are located in the Ionian Sea north of Cephalonia.	
The islands of Corfu and Ithaca are located in the Aegean Sea north of Cephalonia.	
Crete is 100km south-east of Cythera.	✔
Crete is 70km south-east of Cythera.	
Crete is 100km south-west of Cythera.	
Cephalonia is less than 50km from the west coast of mainland Greece.	✔
Cephalonia is more than 50km from the west coast of mainland Greece.	

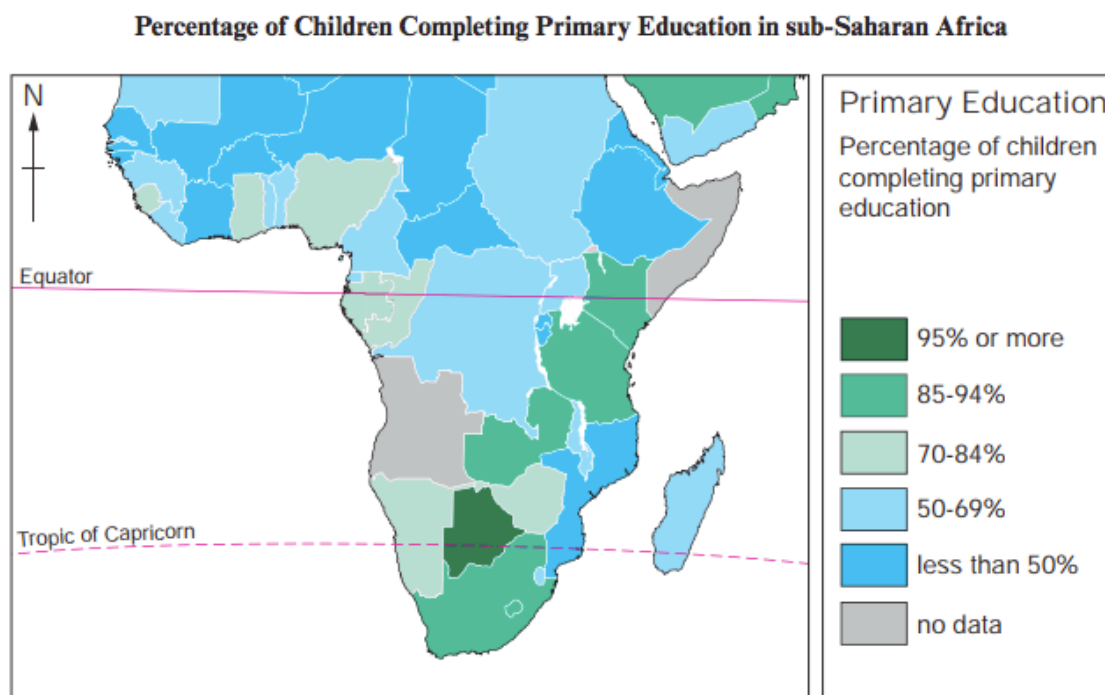## Distance and direction

6. Answer the question that follows.

Tick (✔) **five** statements that are correct.

Statements	Tick (✔)
Islamabad is about 300km from Lahore.	✔
Islamabad is about 500km from Lahore.	
Islamabad is about 200km from Lahore.	
Lahore is north-east of Karachi.	✔
Lahore is south-west of Karachi.	
Pakistan's coastline is about 800km long.	✔
Pakistan's coastline is about 600km long.	
Pakistan is south-east of the UK.	✔
Pakistan is south-west of the UK.	
The border between Pakistan and China is about 300km long.	✔
The border between Pakistan and China is about 250km long.	

Latitude and longitude

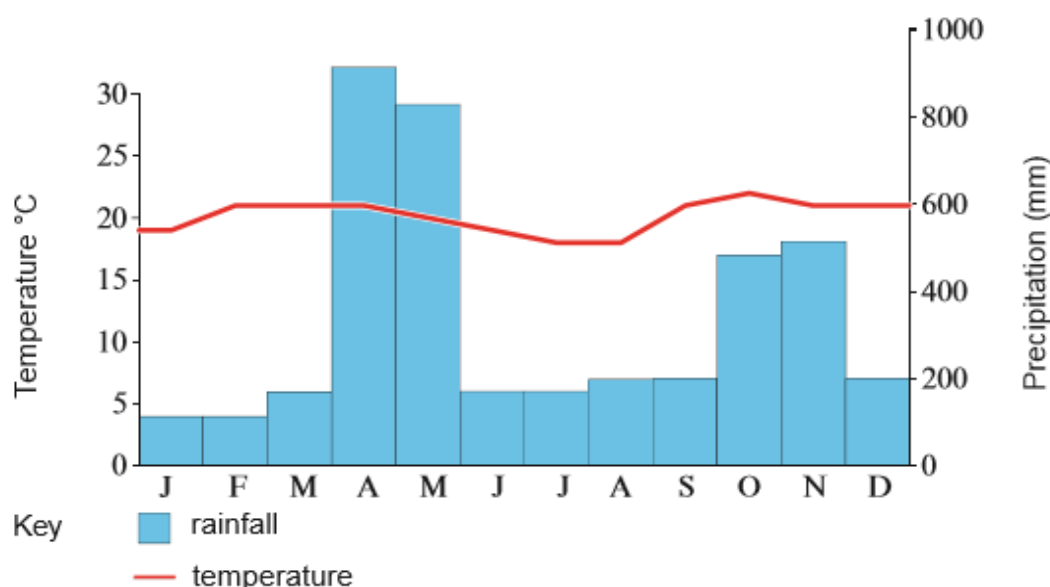**1. Study the map of sub-Saharan Africa below. Answer the question that follows.**

Percentage of Children Completing Primary Education in sub-Saharan Africa

Tick (✓) **five** statements that are correct.

Statements	Tick (✓)
The majority of countries with 69% or below for primary education are found north of the equator.	✓
The majority of countries with 69% or below for primary education are found above the equator.	
The majority of countries with 69% or below for primary education are found south of the equator.	
The exceptions are Mozambique/Kenya/Burundi.	
The exceptions are Mozambique/Rwanda/Burundi.	✓
The exceptions are Mozambique/Kenya/South Africa.	
South Africa is mainly below the Tropic of Capricorn.	
South Africa is mainly south of the Tropic of Capricorn.	✓
South Africa is mainly above the Tropic of Capricorn.	
Countries with 70% or above primary education can be found between the equator and the tropic of Capricorn.	✓
Countries with 85% or above primary education can be found between the equator and the tropic of Capricorn.	
Countries with 70% or above primary education can be found all over the map.	
Botswana has 95% or more primary education.	✓
South Africa has 95% or more primary education.	
Botswana has 50% or less in primary education.	

Interpreting climate graphs

1. Answer the question that follows.

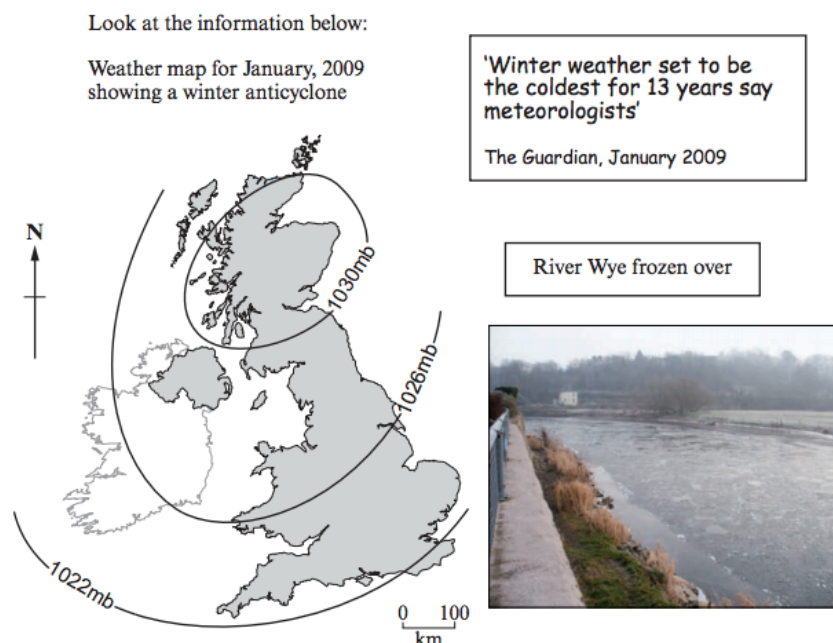Annual average precipitation and temperature graph for Nyeri*

Source: www.world66

Tick (✓) **five** statements that are correct.

Statements	Tick (✓)
The temperature range is approximately 5°C.	✓
The temperature range is approximately 9°C.	
The temperature range is approximately 14°C.	
The highest temperature is 22°C.	✓
The highest temperature is 30°C.	
The highest temperature is 9°C.	
The temperature fluctuates throughout the year.	
The temperature is relatively stable throughout the year.	✓
The coldest month is December.	
The coldest month is April.	
There are 2 distinct peaks in rainfall totals.	✓
There is only one peak in the total rainfall.	
The temperature drops only when the total rainfall is more than 1500mm.	
The temperature drops only when the total rainfall is more than 2000mm.	
The wettest month is April, with a total rainfall of approximately 900mm in the month.	✓
The wettest month is April, with a total rainfall of approximately 400mm in the month.	
The wettest month is April, with a total rainfall of approximately 200mm in the month.	

Interpreting synoptic charts

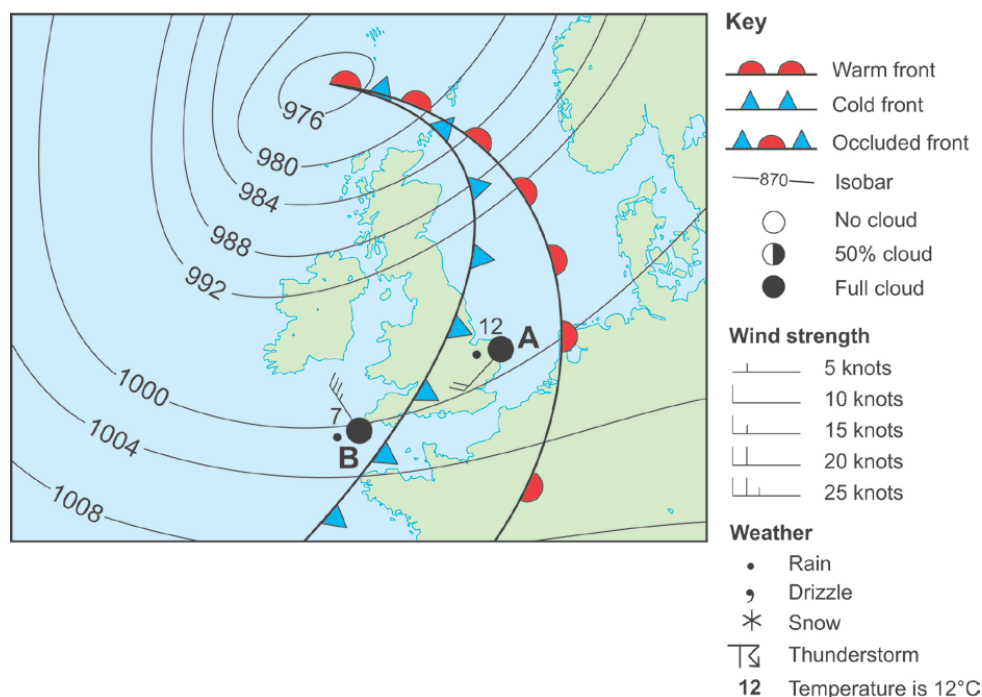**1. Study the synoptic chart below. Answer the question that follows.**

Look at the information below:

Weather map for January, 2009
showing a winter anticyclone

'Winter weather set to be
the coldest for 13 years say
meteorologists'

The Guardian, January 2009

River Wye frozen over

1030mb
1026mb
1022mb

N

0   100
km

Tick (✓) **five** statements that are correct.

Statements	Tick (✓)
This synoptic chart shows the passage of a depression.	
This synoptic chart shows a low pressure system.	
This synoptic chart shows a high pressure system.	✓
All of the UK will have cold temperatures with cloudy skies with strong winds.	
All of the UK will have hot temperatures with cloudy skies with light winds.	
All of the UK will have cold temperatures with clear sunny weather with light winds.	✓
The pressure range is 8mb.	✓
The pressure range is 4mb.	
The isolines are close together which means that it will be rather windy.	
The isolines are far apart which means that it will not be very windy.	✓
The isolines are far apart telling us nothing about how windy it will be.	
Temperatures drop below 0°c at night.	✓
Temperatures are above 0°c at night.	

Interpreting synoptic charts
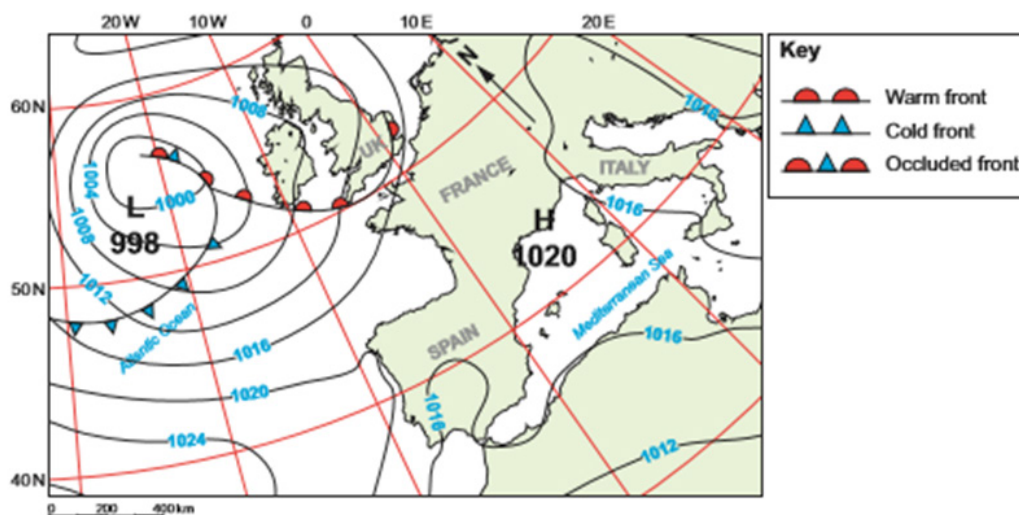
2. Answer the question that follows.

Tick (✔) **five** statements that are correct.

Statements	Tick (✔)
This synoptic charts shows a low pressure system.	✔
This synoptic charts shows a high pressure system.	
The highest temperature on the map is to the west of the warm front.	✔
The highest temperature on the map is to the west of the cold front.	
The highest temperature on the map is to the east of the warm front.	
There is full cloud cover and it is raining at points A and B.	✔
There is full cloud cover and it is drizzle at points A and B.	
The winds over the south-west of England are from the north-west and are 35 knots.	✔
The winds over the south-west of England are from the south-west and are 35 knots.	
The winds over the south-west of England are from the north-west and are 25 knots.	
The temperature range between points A and B is 5°c.	✔
The temperature range between points A and B is 4°c.	

Interpreting synoptic charts
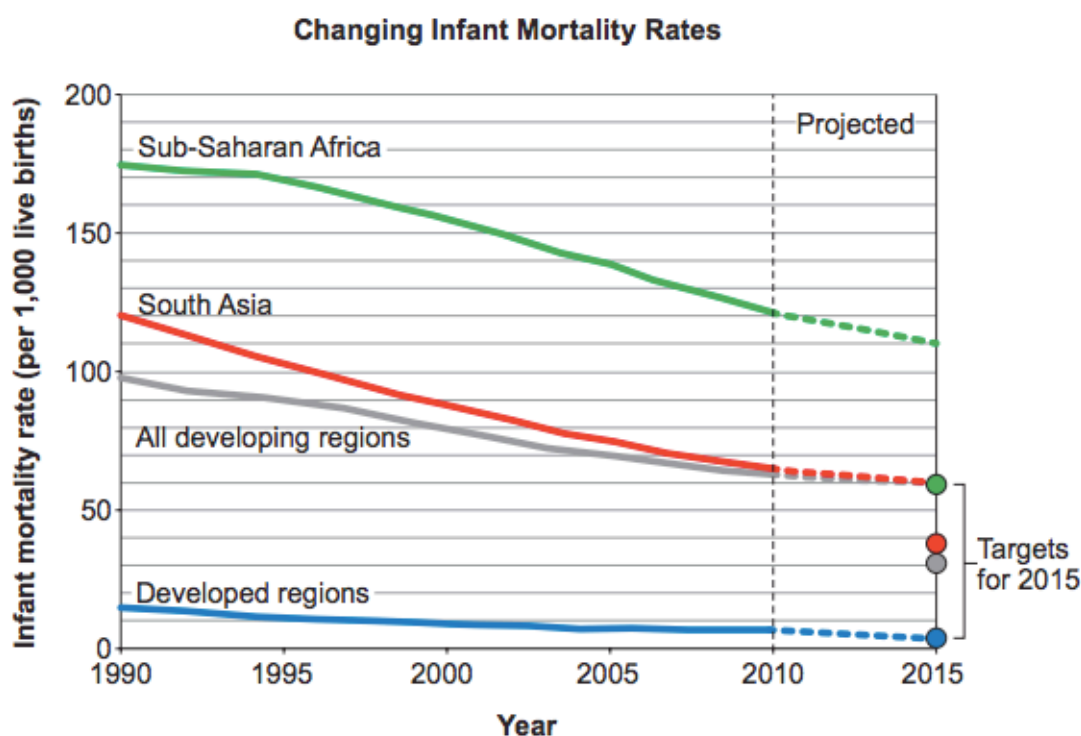
3. Answer the question that follows.

Tick (✓) **five** statements that are correct.

Statements	Tick (✓)
This synoptic weather chart shows a low-pressure system approaching the west of the UK and Ireland.	✓
This synoptic weather chart shows a low-pressure system approaching the north-west of the UK.	
The centre of the low-pressure system is located 50°N 30°W.	
The centre of the low-pressure system is located 40°N and 10°W.	
The centre of the low-pressure system is over the Atlantic Ocean at latitude 400°N and longitude 10°E.	
A high-pressure system is located to the west of France.	
A high-pressure system is located off the Mediterranean coast of France.	✓
A high-pressure system is located to the west of the UK over the Atlantic Ocean.	
The weather will be settled over the south-west of the UK.	
The weather in the south-west will become windier and rain will fall.	✓
The weather in the south-west will not change as the low-pressure system approaches.	
The winds will increase as the cold front passes the south-west of the UK.	✓
As the cold front passes the south-west of the UK the winds will have stopped.	
The winds decrease where the isobars are closer together.	
The winds over Scotland are north easterly.	✓
The winds over Scotland are south westerly.	

Interpreting line graphs

1. Study the line graph of changing Infant Mortality rates. Answer the question that follows.
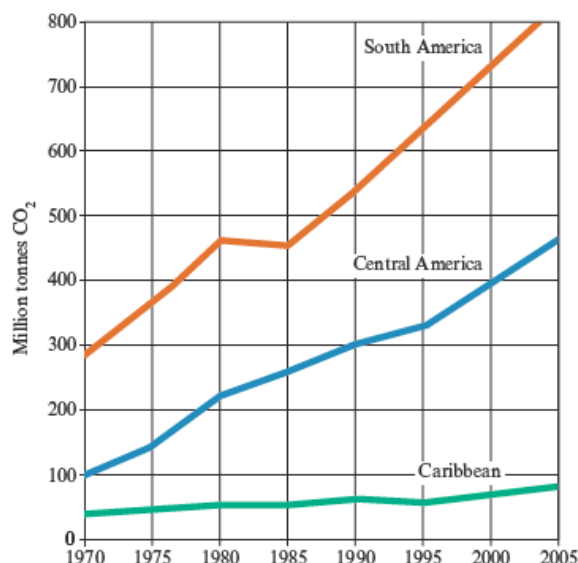

Changing Infant Mortality Rates

Tick (✓) **five** statements that are correct.

Statements	Tick (✓)
The regions with the slowest falling infant mortality rates are developed regions.	✓
The regions with the slowest falling infant mortality rates are developing regions.	
The highest infant mortality rates in 2010 were in Sub-Saharan Africa with 120 per thousand.	✓
The highest infant mortality rates in 2010 were in South Asia with 120 per thousand.	
South Asia has the largest projected fall in infant mortality in the future.	✓
Sub-Saharan Africa has the largest projected fall in infant mortality in the future.	
In 2010 infant mortality in developing nations was 50 per thousand.	
In 2010 infant mortality in developing nations was 65 per thousand.	✓
Sub-Saharan Africa has the largest drop over time with a 65 per thousand drop.	✓
South Asia has the largest drop over time with a 65 per thousand drop.	
Developed has the largest drop over time with a 65 per thousand drop.	

Interpreting line graphs

2. Answer the question that follows.

Carbon dioxide (CO_2) emissions in South and Central America and the Caribbean, 1970 to 2005

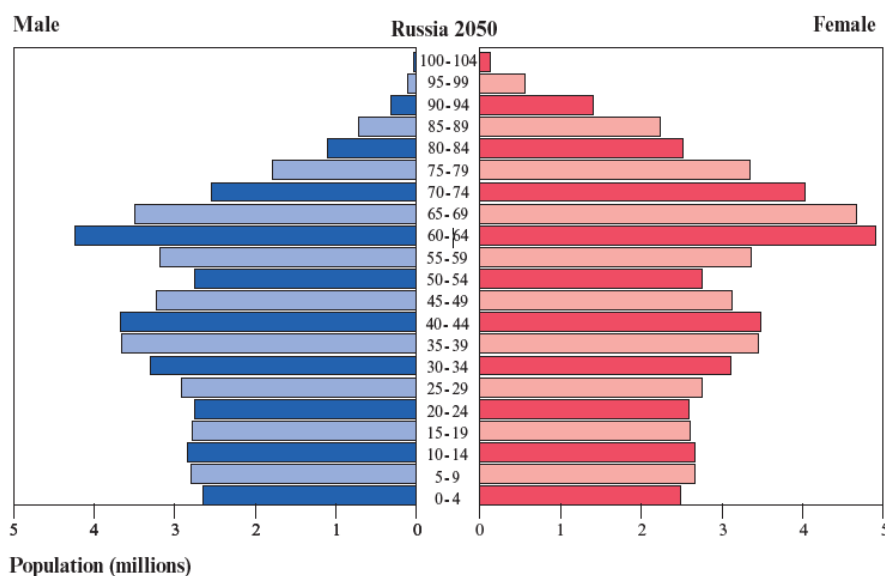Adapted from United Nations Environment Programme / GRID-Arendal

Tick (✓) **five** statements that are correct.

Statements	Tick (✓)
The amount of CO_2 is similar in all three regions.	
Central America had the most CO_2 emission in 2000.	
Central America's emissions have more than trebled between 1970 and 2005.	✓
Between 1970 and 1980 CO_2 emissions in South America more than doubled.	
Between 1970 and 1995 CO_2 emissions in South America more than doubled.	✓
In 1990 CO_2 emissions in Central America were 300 million tonnes.	✓
Emissions decreases slightly in South America between 1980 and 1985.	✓
Emissions decreases slightly in South America between 1975 and 1980.	
In 1990 CO_2 emissions in Central America were 540 million tonnes.	
There has been a gradual increase in CO_2 in the Caribbean.	✓
There has been a rapid increase in CO_2 in the Caribbean.	
The Caribbean is the largest emitter of CO_2.	

Interpreting Population Pyramids

1. Answer the question that follows.

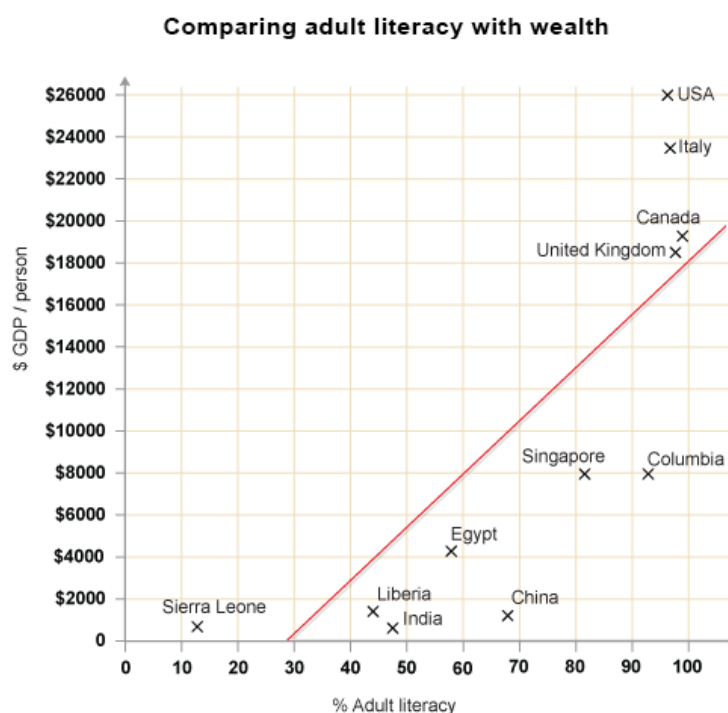The predicted population structure of Russia in 2050

Tick (✓) **five** statements that are correct.

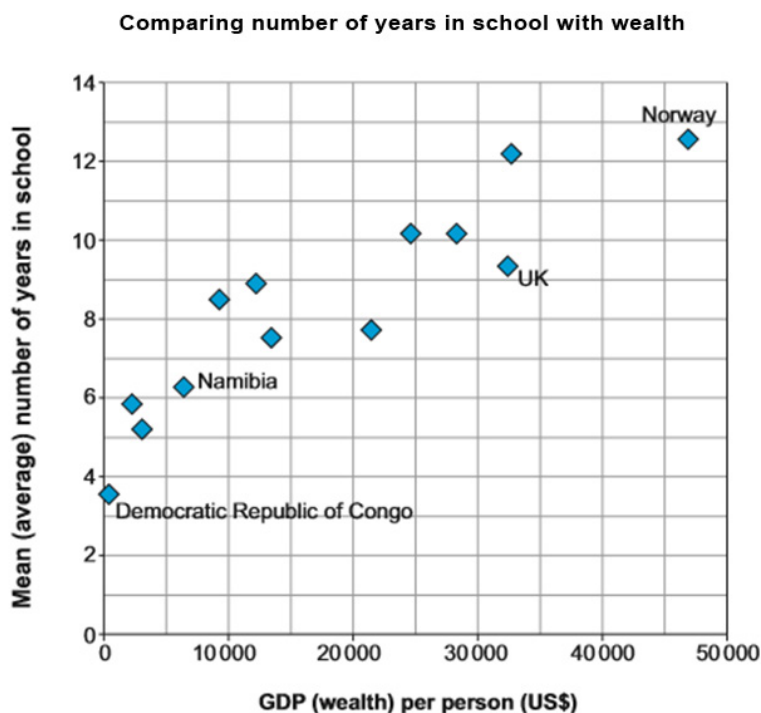| Statements	Tick (✓)
There will be approximately 3 million males aged 25-29.	✓
The largest group will be males aged 60-64.	
The largest group will be females aged 60-64.	✓
There will be approximately one million more females aged 55-59 than men.	
Russia will have a youthful population.	
There will be more females in most age groups older than 60.	✓
The largest group will be females aged 70-74.	
There will be more males in most age groups older than 60.	
Russia will have an ageing population.	✓
There will be approximately one million more females aged 65-69 than men.	✓
A greater proportion of men than women will live longer.	
The pyramid has a wide base which indicates a high proportion of young people.	

Scatter graphs

1. Answer the question that follows.

Comparing adult literacy with wealth

Tick (✔) **five** statements that are correct.

Statements	Tick (✔)
The graph shows a negative correlation.	
The graph shows a positive correlation.	✔
The graph shows no correlation.	
The trend shows that as GDP per person increases adult literacy also increases.	✔
The trend shows that as GDP per person increases adult literacy decreases.	
The UK has a GDP per person around $18250 and an adult literacy rate of about 97.	✔
The UK has a GDP per person around $18250 and an adult literacy rate of about 93.	
A country with a GDP per person of $10000 would have an adult literacy of around 68.	✔
A country with a GDP per person of $10000 would have an adult literacy of around 78.	
Italy has a higher adult literacy than Canada.	
Canada has a higher adult literacy than Italy.	✔
The USA has the highest adult literacy.	

Scatter graphs

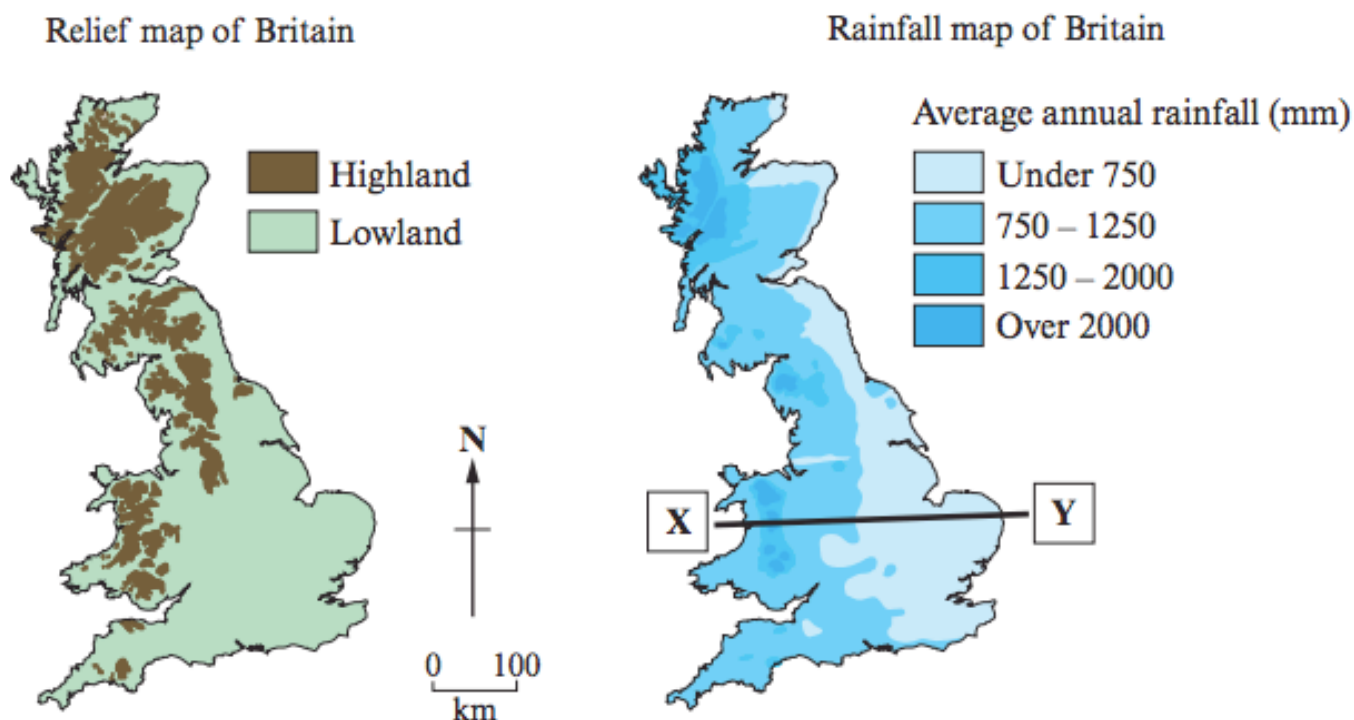**2. Answer the question that follows.**

Comparing number of years in school with wealth

Tick (✔) **five** statements that are correct.

Statements	Tick (✔)
Norway has the largest GDP per person (US$).	✔
Norway has the lowest GDP per person (US$).	
In the UK the population has a mean of 9 years in school.	✔
In the UK the population has a mean of 8 years in school.	
The Democratic Republic of Congo is the least wealthiest country.	✔
The Democratic Republic of Congo is the wealthiest country.	
The Democratic republic of Congo has a mean of 3.5 years in school.	
There is no correlation between the two sets of data.	
The pattern shows a positive correlation.	✔
The pattern shows a negative correlation.	
The two countries in sub-Saharan Africa tend to have the lowest GDP and number of years in school.	✔
The two countries in sub-Saharan Africa tend to have the lowest GDP and have the highest number of years in school.	

Interpreting chloropleth maps

1. Study the relief and rainfall maps of the UK below. Answer the question that follows.
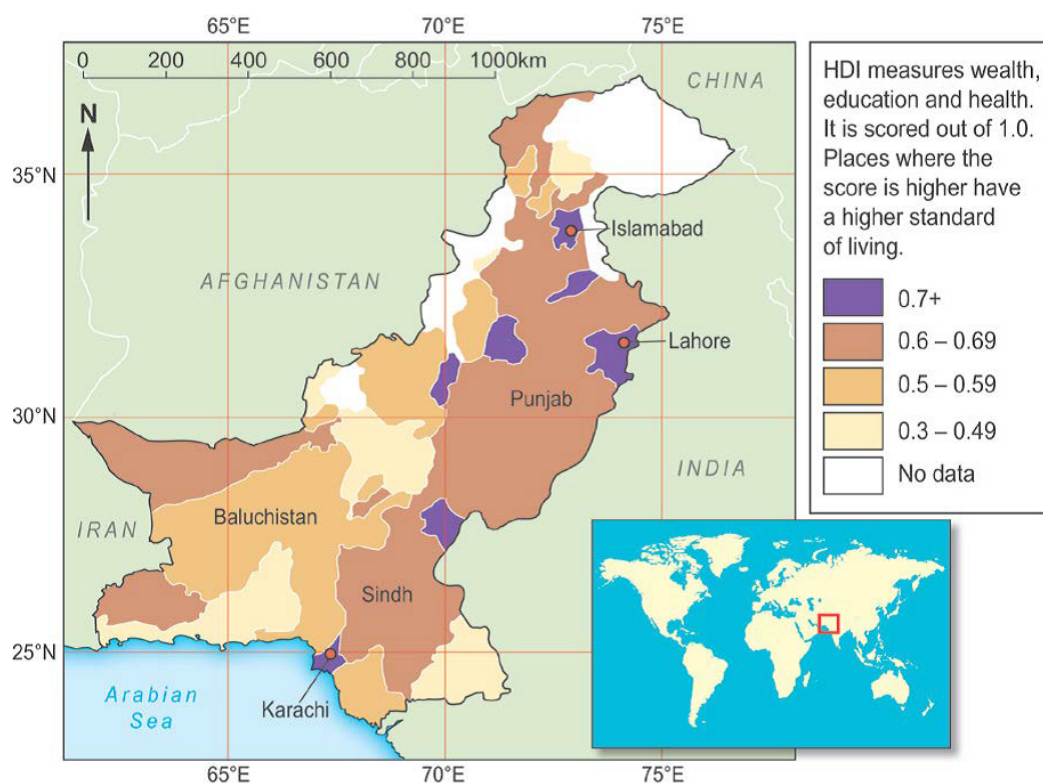
Relief map of Britain

Highland
Lowland

N

0   100
km

Rainfall map of Britain

Average annual rainfall (mm)

Under 750
750 – 1250
1250 – 2000
Over 2000

X ——————————— Y

Tick (✓) **five** statements that are correct.

Statements	Tick (✓)
Areas of highland have rainfall of 1250mm and over.	✓
Areas of highland have rainfall of 2000mm and over.	
Areas of lowland have rainfall of 1250mm and over.	
The amount of rainfall decreases from over 2000mm to under 750mm between X and Y.	✓
The amount of rainfall increases from over 2000mm to under 750mm between X and Y.	
The amount of rainfall does not change between X and Y.	
The east of the UK receives higher amounts of rainfall than the west.	
The west of the UK receives higher amounts of rainfall than the east.	✓
East and South East England are in the leeward area for rainfall patterns.	✓
Wales and South West England are in the leeward area for rainfall patterns.	
North-west Scotland and central Wales receive between 1250mm and 2000mm of rainfall.	
North-west Scotland and central Wales receive less than 750mm of rainfall.	
North-west Scotland and central Wales receive over 2000mm of rainfall.	✓

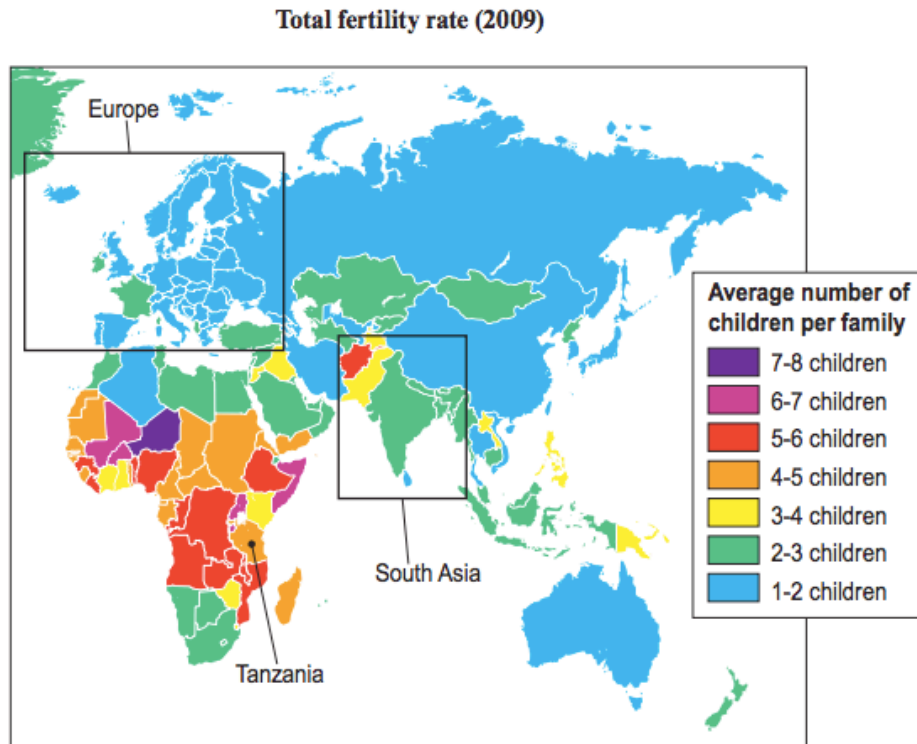## Interpreting chloropleth maps

2. Answer the question that follows.

Tick (✔) **five** statements that are correct.

Statements	Tick (✔)
The cities of Islamabad, Lahore and Karachi have a HDI of 0.7 or greater.	✔
The cities of Islamabad, Lahore and Karachi have a HDI of 0.6 – 0.69.	
The cities of Islamabad, Lahore and Karachi have a HDI of 0.5 – 0.59.	
Sindh has the same HDI as Baluchistan.	
Sindh has the same HDI as Punjab.	✔
All of Pakistan has a HDI greater than 0.3.	
There is a varying HDI across Pakistan.	✔
In Baluchistan the HDI is 0.5 – 0.59.	✔
In Baluchistan the HDI is 0.3 – 0.49.	
The area on the border with China has a HDI greater than Baluchistan.	
There are 7 areas with a HDI greater than 0.7.	✔
There are 6 areas with a HDI greater than 0.7.	

Interpreting chloropleth maps

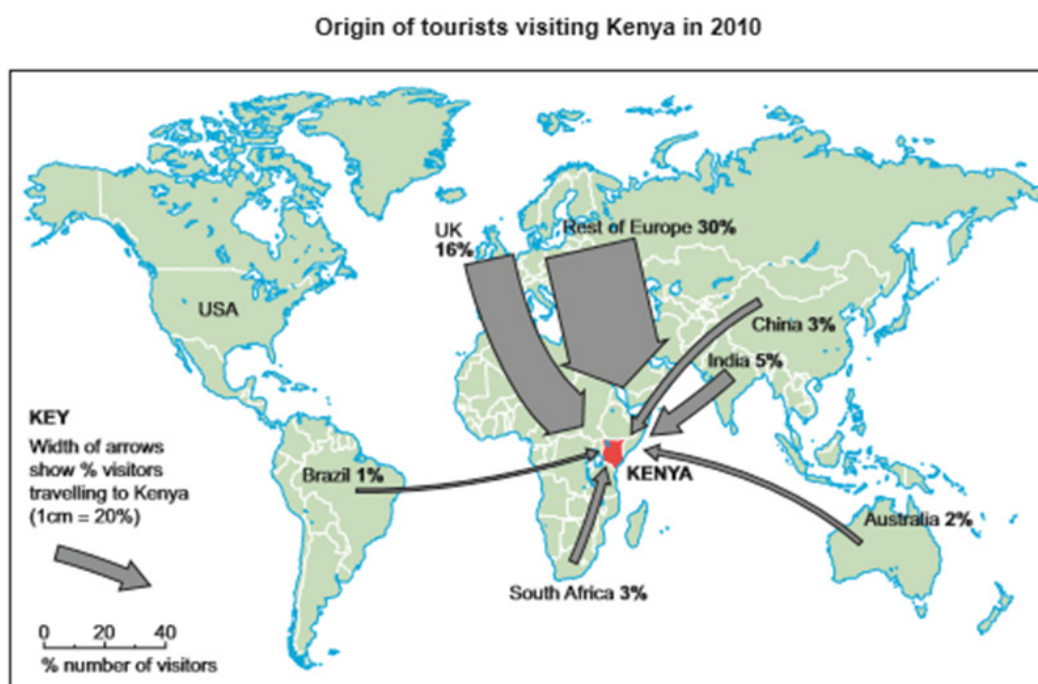**3. Study the map of changing fertility rates. Answer the question that follows.**

Total fertility rate (2009)

Tick (✓) **five** statements that are correct.

Statements	Tick (✓)
Europe has the lowest TFR with between 1-3 children per family.	✓
Asia has the lowest TFR with between 1-3 children per family.	
Africa has the lowest TFR with between 1-3 children per family.	
Mali has the highest TFR.	
Niger has the highest TFR.	✓
Kenya has the highest TFR.	
Sub-Saharan Africa have between 3 to 8 children per family.	✓
Sub-Saharan Africa have between 1 to 8 children per family.	
Sub-Saharan Africa have between 3 to 5 children per family.	
Tanzania has 6-7 children.	
Tanzania has 4-5 children.	✓
Spain and Ireland have more children per family than the rest of Europe.	✓
Spain and Ireland have less children per family than the rest of Europe.	
Spain and Ireland have the same children per family than the rest of Europe.	

Proportional arrows

1. Answer the question that follows.

Origin of tourists visiting Kenya in 2010

Tick (✔) **five** statements that are correct.

Statements	Tick (✔)
16% of tourists visiting Kenya in 2010 were from the UK.	✔
2% of tourists visiting Kenya in 2010 were from China.	
4% of tourists visiting Kenya in 2010 were from South Africa.	
30% of tourists to Kenya in 2010 were from the whole of Europe.	
46% of tourists to Kenya in 2010 were from the whole of Europe.	✔
36% of tourists to Kenya in 2010 were from the whole of Europe.	
Over half of tourists to Kenya in 2010 were from Europe and Asia.	✔
A quarter of tourists to Kenya in 2010 were from Europe and Asia.	
A third of tourists to Kenya in 2010 were from Europe and Asia.	
The least number of tourists who visited Kenya in 2010 came from Brazil.	✔
Most tourists who visited Kenya in 2010 were from the southern hemisphere.	
The country where the largest % of visitors originated from in 2010 was China.	
The country where the largest % of visitors originated from in 2010 was the UK.	✔
The country where the largest % of visitors originated from in 2010 was the rest of Europe.	