

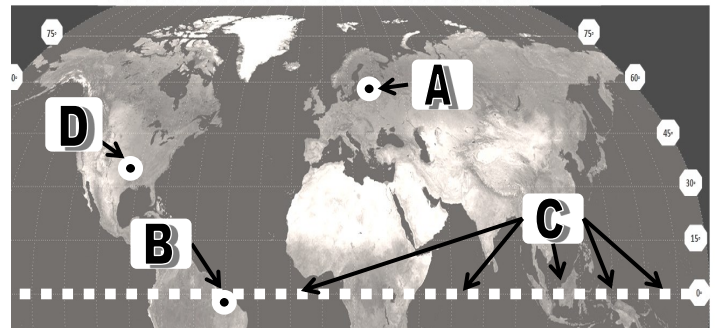
Climate Graphs

Name: _____

Match each place with a letter on the map:

- i. _____ The Equator
- ii. _____ St. Petersburg
- iii. _____ Fortaleza, Brazil
- iv. _____ Dallas, TX

1. ____ Which place is closer to the Equator? Place A or B
2. ____ Which place would you expect to be colder? A or B



Climate graphs contain both lines and bars. But what do they represent? Examine the climate graph below:

The climate graph for Saint Petersburg, Russia measures _____ in degrees Celsius [$^{\circ}\text{C}$] and precipitation in _____ (mm) of rain, _____, sleet or snow. A. millimeters B. hail C. temperature

3. ____ Which letter represents 10°C in May.
4. ____ Which letter represents 16°C in August.
5. ____ Which letter represents 66 mm of rain/snow in October.
6. ____ Which letter represents 57 mm of rain in June.

Climate Graph of Saint Petersburg, Russia

59°N , 30°E (elev. 30ft)

7. ____ The temperature line for St. Petersburg, Russia drops below 0° Celsius for:

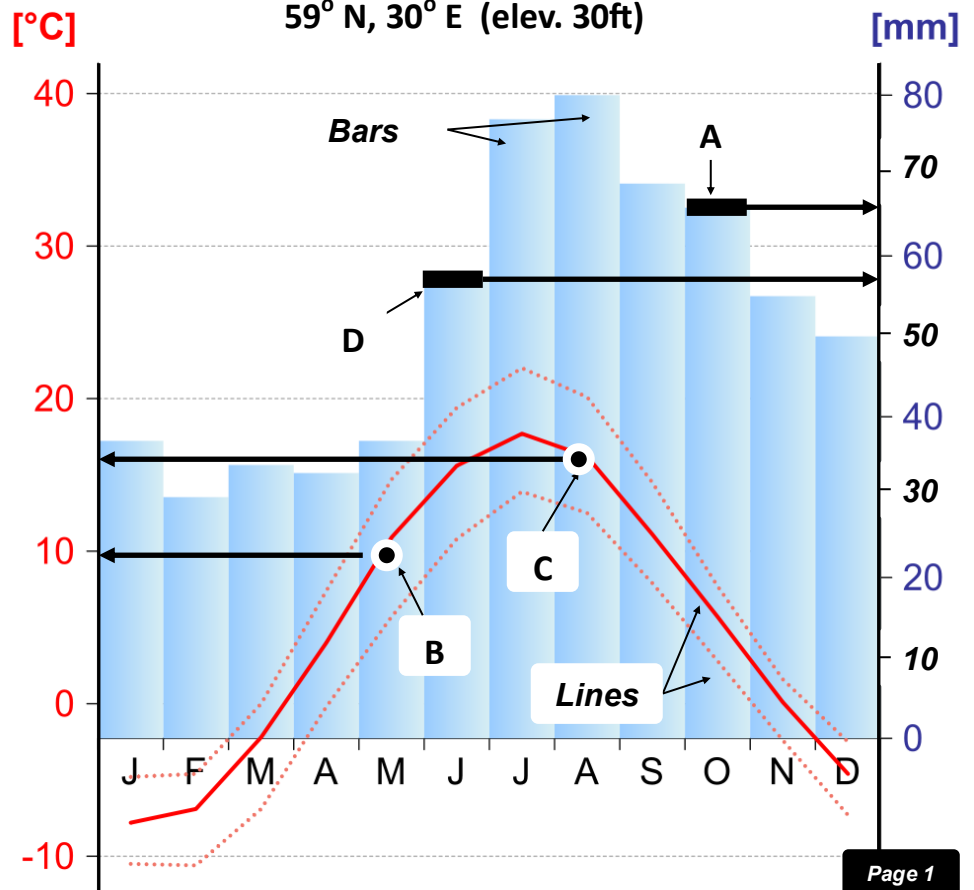
- A. 2 months
- B. 4 months
- C. half of the year

8. ____ The letters at the bottom of the climate graph represent:

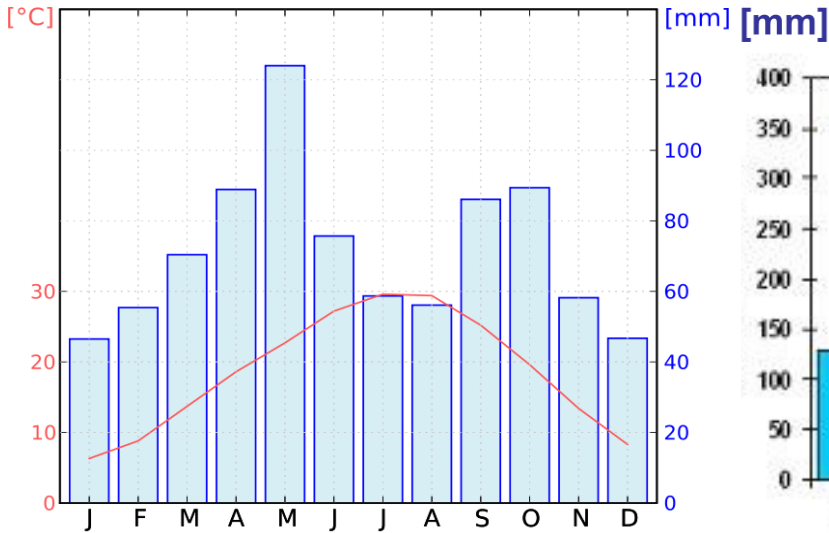
- A. The weeks of the year
- B. The months of the year
- C. The phases of the moon

9. ____ The bar for St. Petersburg shows that August gets about:

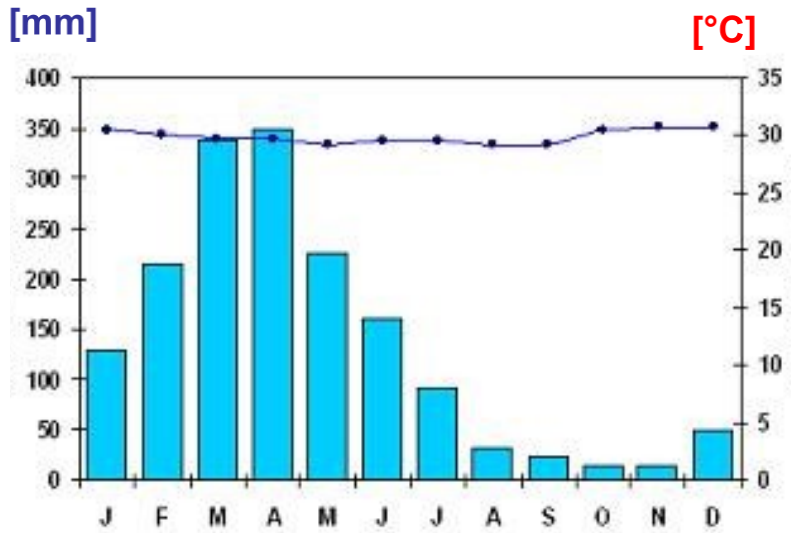
- A. 50 centimeters of rain
- B. 10 millimeters of rain
- C. 8 centimeters of rain
- D. 70 millimeters of rain



Dallas, TX: 32° N, 97° E (elev. 525 ft)



Fortaleza, Brazil: 3° S, 38° W (elev. 70 ft)



Climate Graphs: Their Purpose & Structure

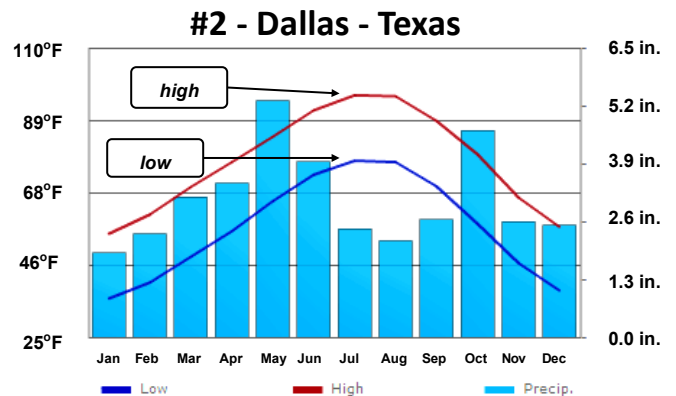
Climate graphs can be _____ to read because they _____ a lot of information.

In some ways, all climate graphs are the same. They all show weather _____ that exist for a specific location on the planet. Every _____, the average temperature and amount of precipitation is calculated and _____ by meteorologists globally. This data is then re-calculated with the averages of _____ years' data. By putting all this information on a graph, geographers and other professionals can quickly _____ the climate trends of a place.

When reading a climate graph, the bars on a climate graph always represent the _____ of precipitation a place experiences. The _____ on a climate graph will always represent the average temperature a _____ experiences in a month.

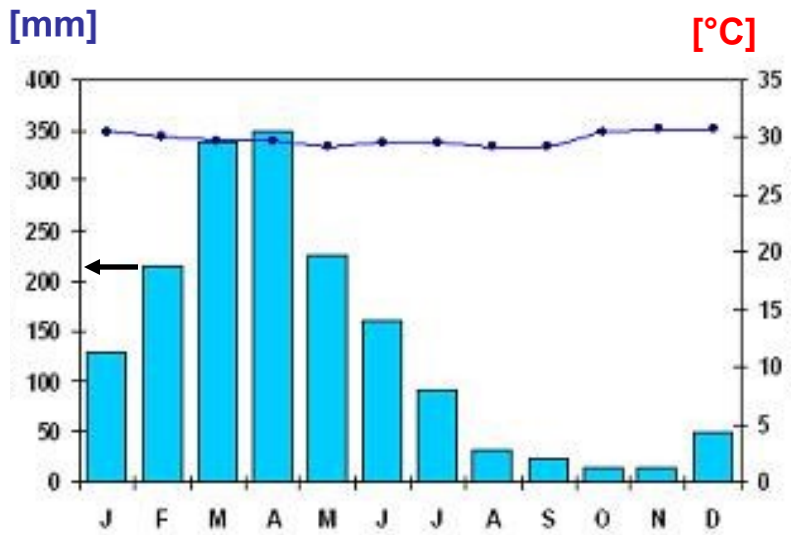
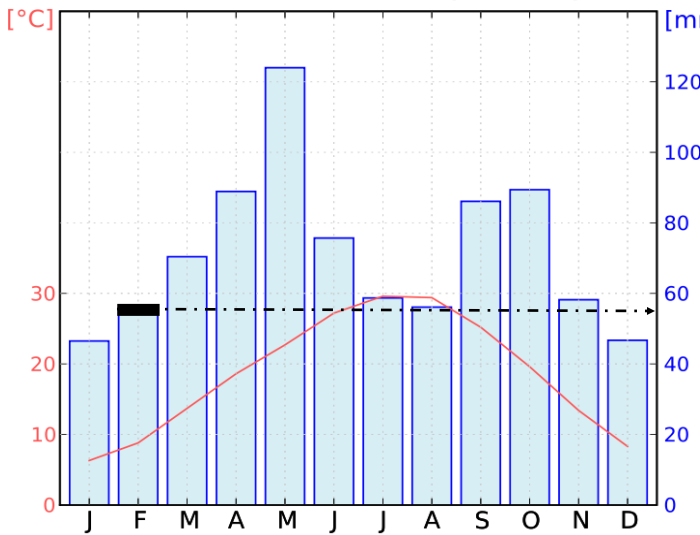
Fill in the Blank: patterns see amount past month line contain tricky recorded place

10. ____ The second climate graph for Dallas is proof that:
- A. not all climate graphs measure temperature.
 - B. climate graphs may use different units for measurements.
11. ____ The units for temperature & rainfall on climate graphs:
- A. Use Fahrenheit and Celsius for temperature
 - B. Use millimeters, centimeters or inches for precipitation
 - C. Change depending on the climate graph
 - D. All of the above



Dallas, TX: 32° N, 97° E (elev. 525 ft)

Fortaleza, Brazil: 3° S, 38° W (elev. 70 ft)



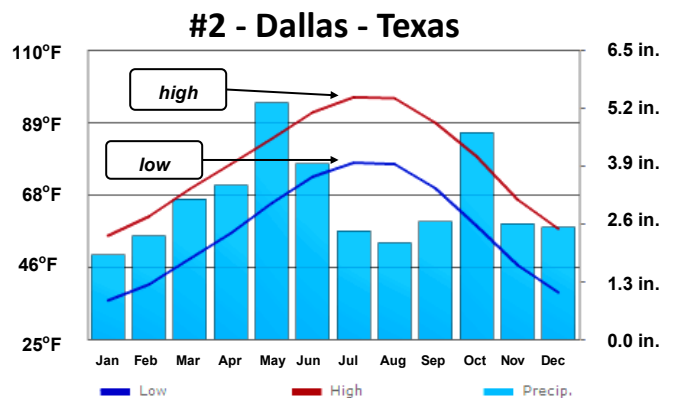
Climate Graphs: How to Interpret Them

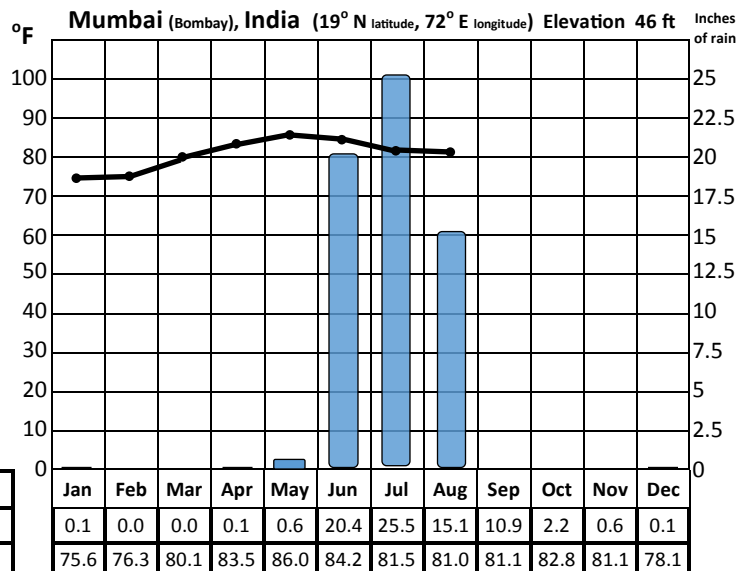
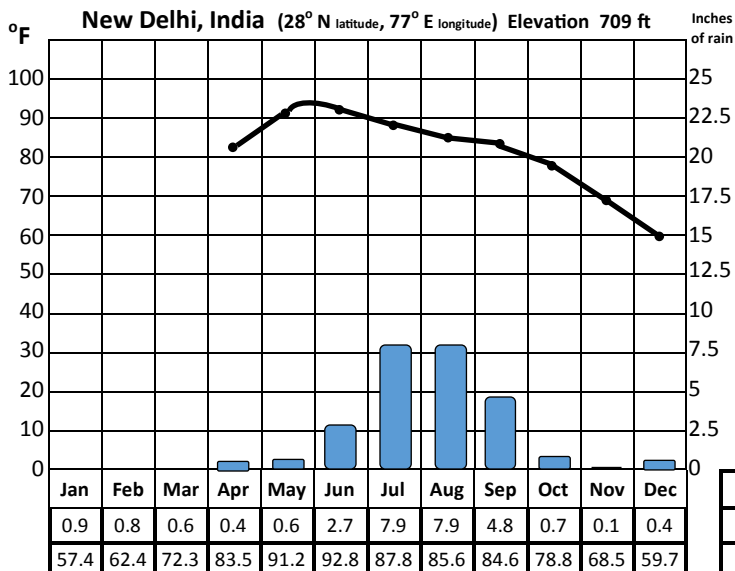
Reading a climate graph to interpret it, or figure out what it means, is not always easy. Here's a couple tricks.

As was mentioned, the bars will always represent a place's monthly precipitation: rain, hail, sleet and snow. It is critical to pay attention to which side of the climate graph the temperature and precipitation units are displayed. On the two graphs above, the precipitation units for Dallas appear on the right side of the graph while Fortaleza's are on the left. But the temperature units are flip-flopped with Dallas' temps on the left and Fortaleza's on the right. To read the precipitation bar for February, even though the bar is on the far left side, you need to hold something straight so that you can trace where the bar lines up with the units on the right side.

Sometimes the increments, or amount between numbers, will also be different on one climate graph compared to another. To measure rainfall in Dallas, since it rarely snows, there are ____ millimeters between each line. But for Fortaleza, because it rains so much, there are ____ mm between lines.

12. ____ The temp for Fortaleza hovers all year on the Celsius scale near: A. 25 B. 300 C. 35 D. 350 E. 30
13. ____ Fortaleza gets the most amount of rain: A. Aug - Nov B. Nov - Feb C. Feb - May D. May—Aug
14. ____ Dallas gets its most rain in May, which is a similar amount for Fortaleza in: A. Jan B. Feb C. Mar D. Apr
15. ____ The second climate graph for Dallas shows that:
 - A. The least rainfall is in Jan
 - B. The most rainfall is in May
 - C. Both A & B
 - D. Neither A or B
16. ____ The second climate graph for Dallas shows that:
 - A. The average high in March is higher than the low in July.
 - B. The average low in May is higher than the high in January.
 - C. Both A & B are true
 - D. Neither A nor B are true





Complete the Climate Graphs

17. ___ How much rainfall does New Delhi get in July? **A.** 7.9 mm **B.** 25.5 inches (in) **C.** 7.9 in
18. ___ How much rainfall does Mumbai get in July? **A.** 7.9 mm **B.** 25.5 inches **C.** 7.9 in
19. ___ What is the average temperature of New Delhi in January? **A.** 57.4°F **B.** 75.6°F **C.** 87.8°F
20. ___ What is the average temperature of Mumbai in January? **A.** 57.4°F **B.** 75.6°F **C.** 87.8°F
21. ___ How many months does New Delhi receive less than 1" of water? **A.** 4 **B.** 6 **C.** 8 **D.** 10
22. ___ How many months does Mumbai receive less than an inch of water? **A.** 5 **B.** 7 **C.** 9 **D.** 11
23. ___ How much rainfall does New Delhi receive from Jun to Sept? **A.** 23.3 in **B.** 37 in **C.** 71.9in
24. ___ How much rainfall does Mumbai receive from Jun to Sept? **A.** 23.3 in **B.** 37 in **C.** 71.9in
25. ___ Between Jun and Sept, which city is more likely to experience flooding? **A.** Mumbai **B.** New Delhi

Directions: For questions 26-32, use **A.** Mumbai or **B.** New Delhi for each answer.

26. ___ Based on their latitudes, which city is further North? **30.** ___ Which city has a higher elevation?
27. ___ Which city has a greater range of temperatures? **31.** ___ Which city is coldest?
28. ___ Which city is in the tropics (low latitudes)? **32.** ___ Which city is in the mid-latitudes?
29. ___ Which city is located along the coastline?

33. ___ What affect does the ocean have on Mumbai in the summertime?
 - A.** makes it cooler than New Delhi (N.D.) **B.** makes it warmer than N.D.
34. ___ What affect does New Delhi's inland location have on the monsoon rainfall?
 - A.** there's more compared to Mumbai **B.** there's less compared to Mumbai

