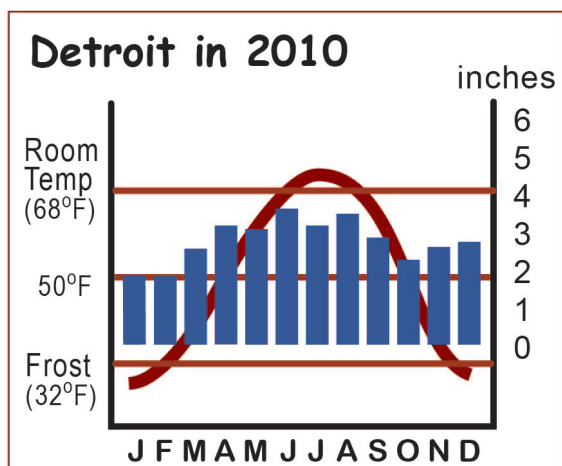


Name _____

How Climate Change Can Alter the Water Balance

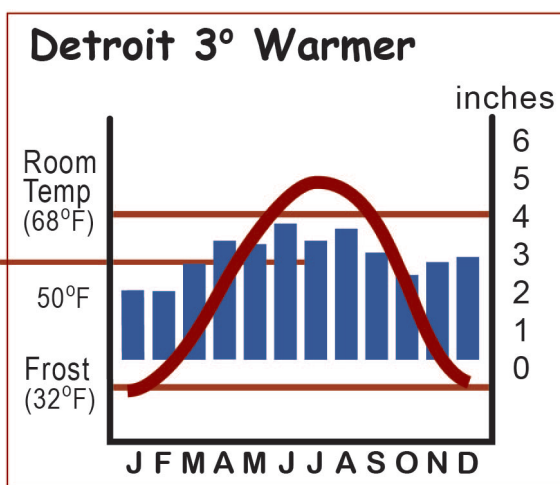


This is a water-balance climograph for Detroit.

The graph tells you that Detroit in 2010 had:

- 2 months when airconditioners are useful
- 2 months when the ground is solidly frozen
- about 5 months growing season

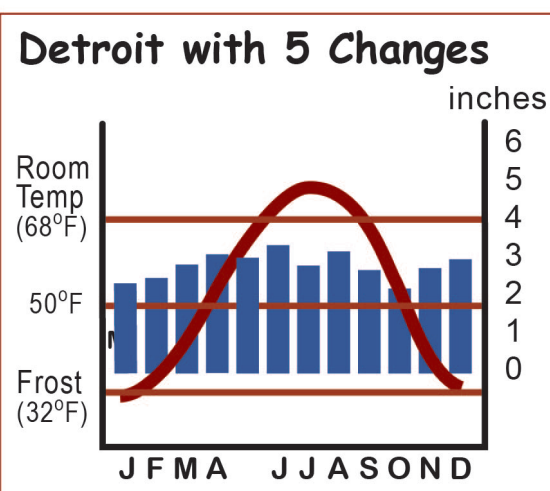
If the precipitation bar extends clearly above the temperature line, that month has a **moisture surplus**. If the bar does not reach up to the temperature line, that month has a **water deficit**. Plants can survive a short deficit by using water from the soil.



What if the average temperatures in Detroit go up three degrees? Even if there is no change in precipitation, the water balance will change.

How many months need airconditioning?
3 5 7

How many months have a water deficit?
4 6 8



Scientists think that five changes are likely:

- temperatures will go up
- precipitation in winter will go up,
- winters will have more rain and less snow,
- summer storms may get stronger, with more rain in a short time, but
- total rainfall in summer will go down, because there will be fewer storms.

This graph shows these predicted changes. Describe what they do to the water balance: