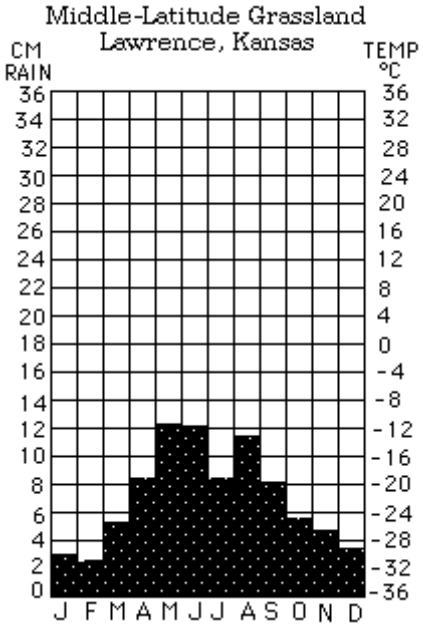
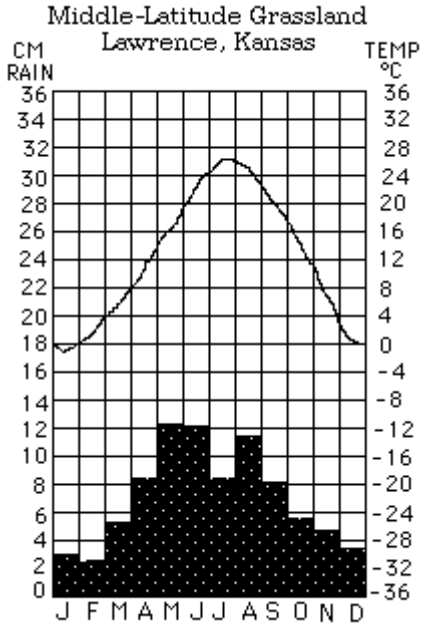
BIOME CLIMATOGRAM LAB /34 NAME _____ HR__

PART ONE—GROUP WORK

There are data tables that contain information for precipitation (P) and temperature (T) attached to your lab sheets. It is labelled, "UNKNOWN BIOMES." Each person in your group of 6 will take one of the unknowns and graph it. For example, student #1 gets unknown A, student #2 gets unknown B, etc. Carefully plot the precipitation data, noting that the numbers for rainfall are on the **LEFT** side of the graph. Plots these 12 points (one point for each month of the year) and color in 12 bars to make a BAR GRAPH. See the example on the right.





Next, carefully plot the temperature data, noting that the numbers for temperature are on the RIGHT side of the graph. These dots should all be connected to form a LINE GRAPH. This line graph is drawn on the *very same* graph, and the line will be found just above the rainfall bars. See the example on the left.

Once all six members have plotted their data, the next step is to compare your drawn graphS with graphs of KNOWN BIOMES found around the world. You will take your graph and see which biome it most closely matches up with. Get a consensus from other members of the group, then write down the name of the biome at the top of the graph and the LOCATION of the biome. Location refers to WHICH HEMISPHERE you think those temperatures would belong to. Northern hemisphere biomes would have higher temperatures in June July and August, while southern hemisphere biomes should be just the opposite. Fill in the locations and biomes for all 6 unknowns (12 points)

PART 2—ON YOUR OWN

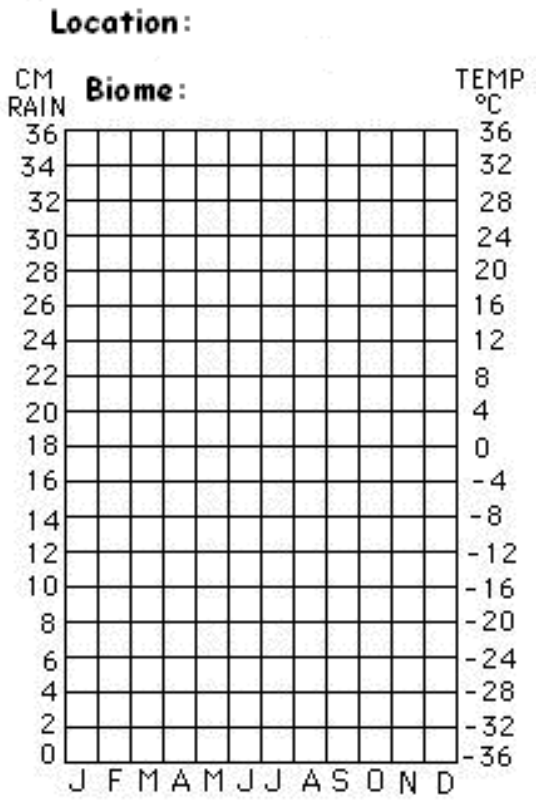
1. How are the Tundra and Desert similar? different?
    a. Similar-
    b. Different-
2. How are the Tropical Rain and Tropical Deciduous Forests similar? different?
    a. Similar-
    b. Different-
3. Lawrence, Kansas and Nashville, Tennessee occupy similar latitudes. Why is one found in a grassland and the other in a forest biome?

4. Considering that the information in your climatograms is presented on a monthly basis, How would you determine which biomes are located in the southern hemisphere?

5. Which biome has the:
    a. most rainfall-
    b. least rainfall-
    c. the highest average temperature-
    d. the lowest average temperature-
    e. most consistent year round temperature-
    f. most variable year round temperature-

Now graph the information for San Francisco. (5pts) →

	J	F	M	A	M	J	J	A	S	O	N	D
P:	4.5	2.8	2.6	1.5	0.3	0.1	0	0.1	0.2	1.1	2.5	3.5
T:	13.0	15.0	16.0	17.0	17.0	19.0	18.0	18.0	21.0	20.0	17.0	14.0



Compare the climatogram for San Francisco with the ten knowns.

6. Which of the known biome climatograms closely resembles San Francisco?

7. In what ways were they similar?

8. In what ways were they different?

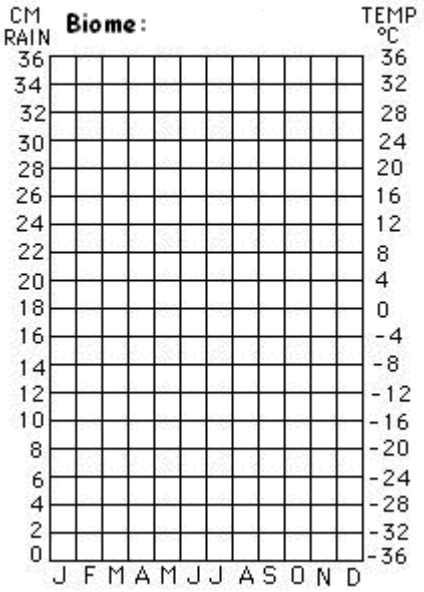
9. Would you consider them to truly be the same biome? Explain.

10. During the thirty-year period used for the data in the San Francisco climatogram there were four drought periods. How would this effect the appearance of the climatogram?

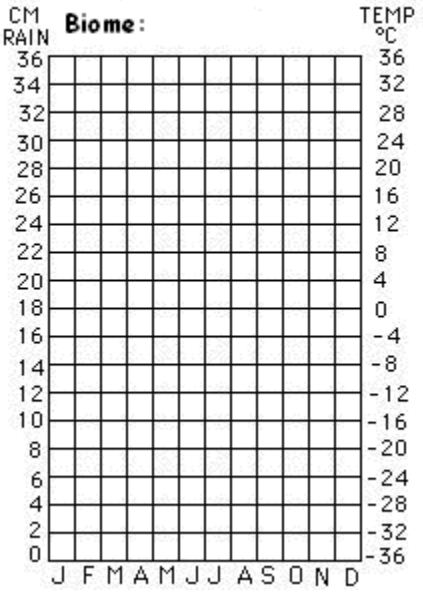
NAME_____ HR__ **12 POINTS**

UNKNOWNS:

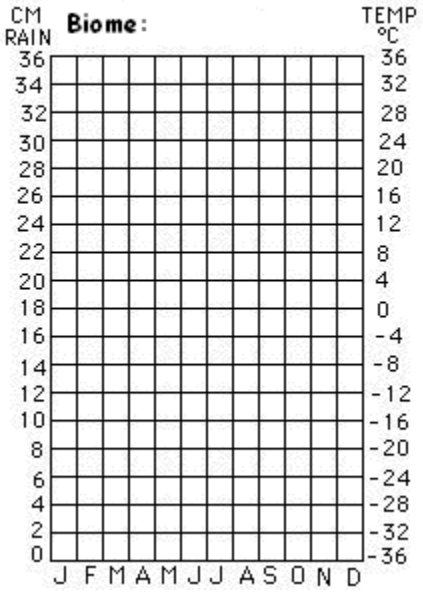
A



B



C



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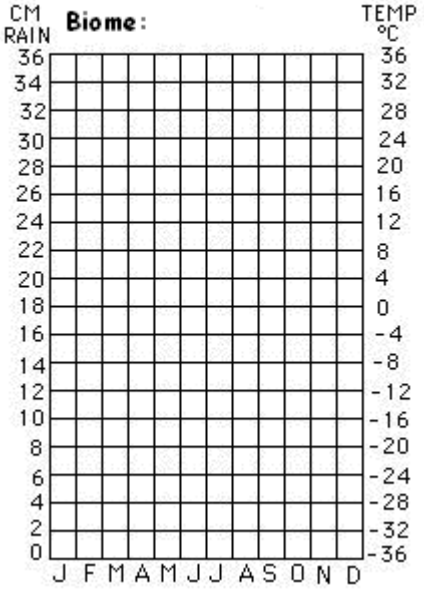

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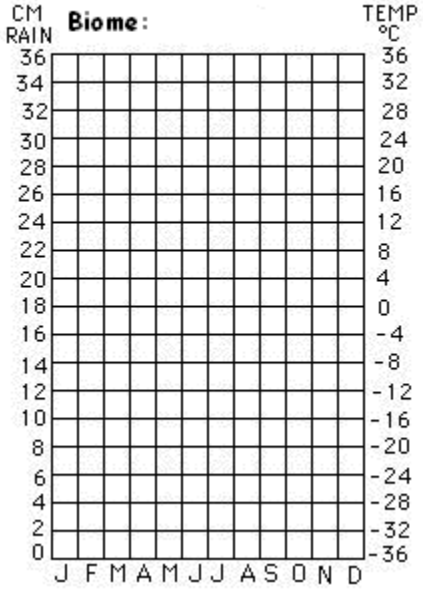
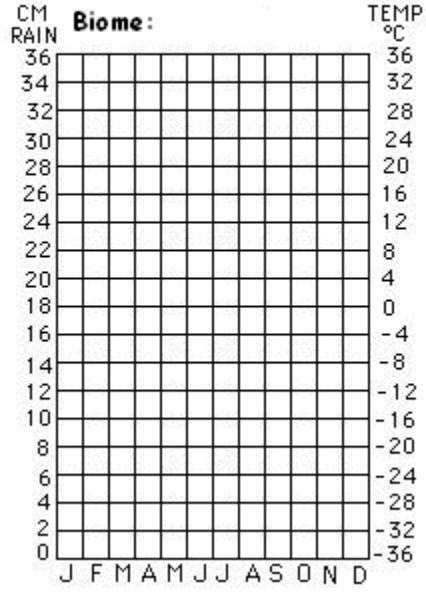


F



UNKNOWN BIOMES

UNKNOWN A

	J	F	M	A	M	J	J	A	S	O	N	D
P:	8.1	7.6	8.9	8.4	9.2	9.9	11.2	10.2	7.9	7.9	6.4	7.9
T:	1.1	1.7	6.1	12.2	17.8	22.2	25	23.3	20	13.9	7.8	2.2

UNKNOWN B

	J	F	M	A	M	J	J	A	S	O	N	D
P:	9.1	8.9	8.6	6.6	5.1	2	0.5	0.5	3.6	8.4	10.9	10.4
T:	10.6	11.1	12.2	14.4	15.6	19.4	21.1	21.7	20	16.7	13.9	11.1

UNKNOWN C

	J	F	M	A	M	J	J	A	S	O	N	D
P:	25.8	24.9	31	16.5	25.4	18.8	16.8	11.7	22.1	18.3	21.3	29.2
T:	25.6	25.6	24.4	25	24.4	23.3	23.3	24.4	24.4	25	25.6	25.6

UNKNOWN D

	J	F	M	A	M	J	J	A	S	O	N	D
P:	1	1.3	1	0.3	0	0	0.3	1.3	0.5	0.5	0.8	1
T:	12.8	15	18.3	21.1	25	29.4	32.8	32.2	28.9	22.2	16.1	13.3

UNKNOWN E

	J	F	M	A	M	J	J	A	S	O	N	D
P:	2.3	1.8	2.8	2.8	3.2	5.8	5.3	3	3.6	2.8	4.1	3.3
T:	-3.9	-2.2	1.7	8.9	15	20	22.8	21.7	16.7	11.1	5	-0.6

UNKNOWN F

	J	F	M	A	M	J	J	A	S	O	N	D
P:	0	0	1.5	0.5	8.9	14.7	12.2	8.1	2	1	0.3	0.8
T:	19.4	18.9	18.3	16.1	15	13.3	12.8	13.3	14.4	15	16.7	17.8