

Exercise #13 Lab Activity

Name: _____

Climate

Lab Section: _____

Please show your work. If necessary please use additional paper to show work.

Classify the following climatic stations using the Köppen system. Listing the temperature maximums and minimums, temperature range, and precipitation amounts will aid the classification process. You will need to determine whether the stations are in the northern or southern hemispheres. **Note:** the station data for precipitation is in millimeters (mm) and some charts are in millimeters and some are in centimeters (cm). To convert: 1 cm = 10 mm / 1 mm = 0.1 cm.

After classifying all ten stations, match the stations with the following cities:

Barrow, Alaska
Ulaan Baatar, Mongolia
Riyadh, Saudi Arabia
Rome, Italy
Cape Town, South Africa

Salem, MA
Singapore
Santiago, Chile
Dar es Salaam, Tanzania
Vostok, Antarctica

	#1		#2		#3		#4	
	Temp (°C)	Precip (mm)	Temp	Precip	Temp	Precip	Temp	Precip
JAN	-26.2	4.5	14.3	13.8	-2.2	94.0	-20.5	1.5
FEB	-27.5	3.8	16.2	10.4	-2.2	88.9	-18.0	1.7
MAR	-26.1	3.6	20.8	29.8	1.7	104.1	-9.6	3.7
APR	-18.3	4.4	25.0	29.7	7.2	96.5	-0.4	9.3
MAY	-7.1	3.7	30.8	13.1	13.9	94.0	8.0	14.0
JUN	1.1	8.2	33.6	0.0	20	78.7	13.7	51.9
JUL	4.1	21.5	34.6	0.0	22.8	88.9	15.6	75.9
AUG	3.3	24.5	34.4	0.0	20.7	106.7	13.7	66.6
SEP	-0.8	15.6	31.4	0.0	17.2	86.4	7.3	30.0
OCT	-9.1	12.3	26.3	0.7	11.1	94.0	-1.2	5.9
NOV	-18.2	6.2	20.6	4.5	5.0	104.1	-11.0	4.0
DEC	-24.2	4.1	15.4	11.3	0.0	96.5	-18.4	2.4
ANNUAL	-12.3	113.4	25.2	112.7	9.5	1132.8	-1.7	268.0

Temp. Max.	<u>4.1 Jul</u>	<u>34.6 Jul</u>	<u>22.8 Jul</u>	<u>15.6 Jul</u>
Temp. Min.	<u>-27.5 Feb</u>	<u>14.3 Jan</u>	<u>-2.2 Jan/Feb</u>	<u>-20.5 Jan</u>
Temp. Range	<u>31.6°</u>	<u>20.3°</u>	<u>25.0°</u>	<u>36.1°</u>
Precip Max.	<u>24.5 Aug</u>	<u>29.8 Mar</u>	<u>106.7 Avg</u>	<u>75.9 Jul</u>
Precip Min.	<u>3.6 Mar</u>	<u>0</u>	<u>78.7 Jun</u>	<u>1.5 Jan</u>
Classification	<u>ET</u>	<u>BWh</u>	<u>Dfa</u>	<u>Dwc</u>
City	<u>BARROW AK</u>	<u>RIYADH SAUDI ARABIA</u>	<u>SALEM MA</u>	<u>ULAAN BAATAR MONGOLIA</u>
	<u>(NH)</u>	<u>(NH)</u>	<u>(NH)</u>	<u>(NH)</u>

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	#5		#6		#7		#8	
	Temp (°C)	Precip (mm)	Temp	Precip	Temp	Precip	Temp	Precip
JAN	7.2	80.0	21.7	15.9	-32.1	0.1	26.2	238.5
FEB	8.3	70.9	21.8	15.2	-44.3	0.0	26.9	165.1
MAR	10.5	68.6	20.8	21.6	-57.9	0.7	27.3	173.6
APR	13.7	66.8	18.6	49.5	-64.7	0.5	27.7	166.4
MAY	17.8	51.5	15.8	91.7	-65.6	0.4	27.7	170.7
JUN	21.7	34.1	13.9	105.4	-65.2	0.5	27.5	163.1
JUL	24.4	16.3	13.3	91.2	-66.9	0.6	27.2	149.8
AUG	24.1	24.4	13.7	82.6	-67.6	0.7	27.1	171.3
SEP	20.9	69.2	15.2	54.3	-66.0	0.3	27.1	163.5
OCT	16.6	113.3	17.1	39.6	-57.1	0.2	27.2	191.0
NOV	11.7	110.7	19.2	24.2	-43.3	0.1	26.8	250.1
DEC	8.4	97.1	20.5	19.3	-32.1	0.0	26.3	268.7
ANNUAL	15.4	802.9	17.6	612.5	-55.1	4.5	27.1	2272.2

Temp. Max.	<u>24.4 Jul</u>	<u>21.8 FEB</u>	<u>-32.1 DEC/JAN</u>	<u>27.7 APR/MAY</u>
Temp. Min.	<u>7.2 Jan</u>	<u>13.3 Jul</u>	<u>-67.6 AUG</u>	<u>26.2 Jan</u>
Temp. Range	<u>17.2°</u>	<u>8.5°</u>	<u>35.5°</u>	<u>1.5°</u>
Precip Max.	<u>113.3 OCT</u>	<u>105.4 JUN</u>	<u>0.7 MAR/AUG</u>	<u>268.7 DEC</u>
Precip Min.	<u>16.3 Jul</u>	<u>15.2 FEB</u>	<u>0 FEB/DEC</u>	<u>149.8 Jul</u>
Classification	<u>ROME ITALY</u>	<u>Csb</u>	<u>EF</u>	<u>AF</u>
City	<u>Csa</u>	<u>CAPE TOWN</u>	<u>VOSTOK</u>	<u>SINGAPORE</u>
	<u>(NH)</u>	<u>(SH) SOUTH AFRICA</u>	<u>(SH) ANTARCTICA</u>	<u>(NH)</u>

	#9		#10	
	Temp (°C)	Precip (mm)	Temp	Precip
JAN	27.5	71.1	20	0.0
FEB	27.6	63.2	19.4	2.5
MAR	27.2	128.1	17.2	5.1
APR	26.2	270.3	13.9	15.3
MAY	25.1	182.7	11.1	58.4
JUN	23.9	33.5	8.9	81.3
JUL	23.3	27.4	8.3	86.4
AUG	23.5	25.9	8.9	61.0
SEP	24.0	28.3	12.8	30.5
OCT	25.1	49.1	13.3	15.3
NOV	26.2	84.2	16.1	5.1
DEC	27.3	90.4	18.3	5.1
ANNUAL	25.6	1056.4	13.3	365.8

Temp. Max.	<u>27.6 Jan</u>	<u>20.0 Jan</u>
Temp. Min.	<u>23.3 Jul</u>	<u>8.3 Jul</u>
Temp. Range	<u>4.3°</u>	<u>11.7°</u>
Precip Max.	<u>270.3 Apr</u>	<u>86.4 Jul</u>
Precip Min.	<u>25.9 Aug</u>	<u>0 Jan</u>
Classification	<u>AW</u>	<u>Csb</u>
City	<u>DAR ES SALAAM</u>	<u>SANTIAGO CHILE</u>
	<u>(SH) TANZANIA</u>	<u>(SH)</u>