

**Hunter College-CUNY  
Geography Department  
GEOG 101 – Atlas Extra Credit for Exam II**

The extra credit exercises associated with each third of the course are worth a maximum of **8 points** added to your exam score at the end of each third. For Exam 2, the extra credit exercise focuses on climate.

**REVISED INSTRUCTIONS for EXTRA CREDIT II**

**NEW DUE DATE  
Tuesday, March 31, 2020.**

**There are 80 questions in Extra Credit II.**

- Place all responses on the Answer Sheet on the last page of this exercise.
- Be sure to include **Your Name** and “**GEOG 101 Ex Cr II**” at the top.
- Either scan the answer sheet and email it to be by **11 PM, March 31, 2020** or type the answers into the body of an email and send it to me by 11 PM, March 31, 2020.
- Any answer sheet sent after the 11 PM time stamp will not be graded.

Please be very careful to place the answers in the correct spaces and in the correct section of the answer sheet. Use **UPPER CASE** letters if you hand-write the answers before scanning.

As indicated on the syllabus, the number of extra credit points is based on the percent of correct answers.

**PLEASE NOTE:**

**EXAM II will NOT take place on April 3.**

**When things settle down, I will inform you of the new date and format of the exam**

## GEOG 101 - EXTRA CREDIT EXERCISE 2 CLIMATES

Consult CHAPTER 2 of your Dahlman and Renwick textbook (descriptions, diagrams and maps), an atlas to locate places, and your class notes for the answers to this extra credit assignment. There are climate, ocean current, and wind maps at the end of the exercise.

*Locate the following places and determine their climate. Do this by consulting the atlas's index to find each location's coordinates and then transfer these coordinates to the world climate map on the last page on this exercise. Use the following key to indicate your answer:*

- |  |  |
|--|--|
| <b>1 = Tropical rainforest: Af, Am</b> | <b>7 = Humid Subtropical: Cfa</b>      |
| <b>2 = Tropical savanna: Aw</b>        | <b>8 = Humid Continental: Dfa, Dfb</b> |
| <b>3 = Desert (arid): BW</b>           | <b>9 = Subarctic: Dfc, Dfd</b>         |
| <b>4 = Steppe (semi-arid): BS</b>      | <b>10 = Tundra: ET</b>                 |
| <b>5 = Mediterranean: Cs</b>           | <b>11 = Icecap: EF</b>                 |
| <b>6 = Marine West Coast: Cfb, Cfc</b> | <b>12 = Highland: H</b>                |

- |                                     |       |       |       |       |       |
|-------------------------------------|-------|-------|-------|-------|-------|
| 1. Gaborone, Botswana:              | a) 11 | b) 4  | c) 7  | d) 5  | e) 1  |
| 2. Addis Ababa, Ethiopia:           | a) 2  | b) 12 | c) 5  | d) 6  | e) 9  |
| 3. Wellington, New Zealand:         | a) 9  | b) 12 | c) 6  | d) 4  | e) 10 |
| 4. 75°N, 40°W, Greenland:           | a) 1  | b) 3  | c) 7  | d) 8  | e) 11 |
| 5. Algiers, Algeria:                | a) 2  | b) 12 | c) 5  | d) 6  | e) 10 |
| 6. Shanghai, China:                 | a) 1  | b) 5  | c) 7  | d) 8  | e) 12 |
| 7. Moscow, Russia                   | a) 8  | b) 4  | c) 7  | d) 11 | e) 1  |
| 8. Montreal, Canada:                | a) 3  | b) 5  | c) 7  | d) 8  | e) 9  |
| 9. Mecca, Saudi Arabia:             | a) 11 | b) 3  | c) 5  | d) 9  | e) 10 |
| 10. Iqaluit, Canada:                | a) 1  | b) 9  | c) 5  | d) 7  | e) 10 |
| 11. Denver, USA:                    | a) 11 | b) 4  | c) 9  | d) 8  | e) 12 |
| 12. Charleston (SC), USA:           | a) 1  | b) 9  | c) 2  | d) 7  | e) 3  |
| 13. Lhasa (Tibet), China:           | a) 12 | b) 4  | c) 1  | d) 3  | e) 8  |
| 14. Yakutsk, Russia:                | a) 3  | b) 6  | c) 7  | d) 9  | e) 11 |
| 15. Los Angeles, USA:               | a) 5  | b) 3  | c) 11 | d) 8  | e) 1  |
| 16. Goa, India:                     | a) 2  | b) 4  | c) 8  | d) 1  | e) 12 |
| 17. Tokyo, Japan:                   | a) 1  | b) 9  | c) 2  | d) 11 | e) 7  |
| 18. Iquique, Chile:                 | a) 3  | b) 1  | c) 7  | d) 8  | e) 11 |
| 19. Cape York Peninsula, Australia: | a) 1  | b) 9  | c) 2  | d) 11 | e) 3  |
| 20. Seattle, USA:                   | a) 10 | b) 6  | c) 3  | d) 4  | e) 11 |
| 21. South Pole, Antarctica          | a) 11 | b) 4  | c) 7  | d) 8  | e) 1  |
| 22. Lagos, Nigeria:                 | a) 7  | b) 10 | c) 8  | d) 6  | e) 2  |
| 23. Manaus, Brazil:                 | a) 4  | b) 2  | c) 5  | d) 1  | e) 9  |
| 24. Perth, Australia                | a) 6  | b) 5  | c) 7  | d) 12 | e) 3  |



**CONSULT THE FOLLOWING WEB SITE TO ANSWER THE QUESTIONS POSED FOR THE SPECIFIC CITIES NAMED: <https://www.usclimatedata.com/>. Click on the state name to see the list of its cities. Click on a city name to see its climograph and related chart. Scroll down the page to the climograph. Move the cursor over the graph for the data. NOTE: Pay attention to the scale of the climograph axes. They are different.**

38. For **Caribou, Maine** the climate statistics indicate that the average temperature (aver. high temp + aver. low temp divided by 2) for the coldest months (Jan. and Feb.) is above 32°F.  
a) TRUE      b) FALSE
39. Which city of **Alaska** experiences the greatest difference in its high temperature between its coldest and warmest months?  
a) Anchorage    b) Fairbanks      c) Juneau
40. **Seattle, Washington** has a summer dry season.  
a) TRUE      b) FALSE
41. For **Birmingham, Alabama**, the greatest amount of precipitation occurs during the summer months (Jun-Sep).  
a) TRUE      b) FALSE
42. Compare the climographs for **Houston, TX** (1<sup>st</sup> entry), **New Orleans, LA** (1<sup>st</sup> entry) and **Miami, FL**. Which city has both the smallest temperature range of average high monthly temperatures (over 12 months) and a noticeable dry season?  
a) Houston    b) New Orleans      c) Miami
43. **California's Bay Area** is anchored by the cities of **San Francisco, San Jose** and **Oakland**. All have a dry summer. Comparing their climographs, which city has the average wettest winter season (November-March)?  
a) San Francisco    b) San Jose    c) Oakland
44. **California's Bay Area's** city with the coolest average temperature (high/low) for July is:  
a) San Francisco    b) San Jose    c) Oakland
45. **Boston, Massachusetts** has a noticeable warm season during which it receives the greatest amount of monthly precipitation.  
a) TRUE      b) FALSE
46. Which city receives a **higher annual average snowfall**?  
a) Portland, Arkansas    b) Portland, Maine    c) Portland, Oregon
47. In **Phoenix, Arizona**, which month receives more than 1 inch of precipitation on average annually?  
a) January    b) March      c) May      d) July
48. For **Boise, Idaho**, the climograph indicates that there is a large range of average temperature between the warmest and coldest months.  
a) TRUE      b) FALSE

**CONSULT THE OCEAN CURRENTS MAP.**

49. Which current **DOES NOT** form part of the circulation system of the North Atlantic Ocean?  
a) Canary      b) Gulf Stream      c) Norwegian      d) Benguela

50. Which current is **NOT** a cold current?  
 a) Peru      b) West Australia      c) Alaska      d) California
51. **TRUE - FALSE:** The Equatorial Counter Current separates the ocean circulation system of the northern ocean basin from the circulation system of the southern ocean basin.  
 a) TRUE      b) FALSE

**CLIMATE PATTERNS OF SOUTH AMERICA.**

*From latitudes 10°S to 25°S, the Atlantic Ocean coasts of South America and Africa, although both tropical, have opposite precipitation characteristics.*

52. What causes the South American coast to be hot/wet while the African coast is hot/dry?  
 a) temperature of the ocean currents  
 b) predominant direction of wind flow  
 c) combination of "a" and "b"  
 d) mountain ranges  
 e) combination of "a" and "d"

**FOCUS YOUR ATTENTION ON PERU**

53. Which pattern does the climate regions of Peru exhibit?  
 a) No pattern. The climate is generally uniform throughout the country.  
 b) Climates run in a general east-west direction parallel to lines of latitude.  
 c) Climates run in a general north-south direction parallel to the coastline.  
 d) The general pattern of the climate regions is one of small circular units.
54. Which climate region is NOT found in Peru?  
 a) A - tropical rainforest  
 b) B - dry  
 c) D - humid continental  
 d) H - highland
55. Comparing the general pattern Peru's climates with terrain, proximity to the ocean, and the location on earth of its climates, which is **NOT** a determining factor for their existence?  
 a) landforms      b) ocean currents      c) longitude      d) elevation

**FOCUS YOUR ATTENTION ON PATAGONIA, a region of Argentina. Consult the climate and landform maps and the global wind system diagram at the end of the exercise.**

56. The climate of Patagonia is classified as being mostly  
 a) arid      b) tropical rainforest      c) humid subtropical      d) tundra
57. The predominant winds found in this region are the  
 a) westerlies      b) polar easterlies      c) southerlies      d) southeast trades
58. Patagonia's precipitation and environment characteristics are a result of its location  
 a) at very high elevations.  
 b) on the windward side of the Andes Mts.  
 c) on the leeward side of the Andes Mts.  
 d) near the Atlantic Ocean.

**To the north, in contrast to Patagonia, the Pampas of Argentina exhibit humid subtropical climatic characteristics.**

59. It is warmer as one goes from south to north in Argentina because
- a) there is an urban heat island affect radiating from Buenos Aires
  - b) the elevation is lower in the north.
  - c) north is in the direction of the equator.
  - d) a warm water current flows into the Rio de la Plata.

**FOCUS YOUR ATTENTION ON THE TROPICS.**

60. The **temperature** characteristics of the tropical climates can be **generalized** as
- a) being always very warm.
  - b) having a hot summer with a mild winter
  - c) having a cool winter with a mild summer
  - d) variable (cool to mild) with the seasons.
61. The **average annual precipitation** associated with the **tropical humid zone** (Af, Am) is
- a) Less than 10 inches
  - b) between 20 and 60 inches
  - c) 60 or more inches.
62. The **average annual precipitation** associated with the **tropical desert zone** (BWh) is
- a) Less than 10 inches
  - b) between 20 and 60 inches
  - c) 60 or more inches.
63. Which subgroup of the humid tropical “A” climate experiences a pronounced dry period during its “cooler” months?
- a) Af
  - b) Am
  - c) Aw

**FOCUS YOUR ATTENTION ON DESERT AREAS.**

**Locate the listed deserts by continent. Use the following key to indicate your answer:**

**a. Australia    b. Africa    c. North America    d. Asia    e. South America**

- |                      |      |      |      |      |      |
|----------------------|------|------|------|------|------|
| 64. Kalahari:        | a. – | b. – | c. – | d. – | e. – |
| 65. Great Victoria:  | a. – | b. – | c. – | d. – | e. – |
| 66. Atacama:         | a. – | b. – | c. – | d. – | e. – |
| 67. Gobi:            | a. – | b. – | c. – | d. – | e. – |
| 68. Mojave:          | a. – | b. – | c. – | d. – | e. – |
| 69. Ar Rub al Khali: | a. – | b. – | c. – | d. – | e. – |

70. **TRUE - FALSE:** All subgroups of the “B” climate group are totally barren of vegetation.
- a) TRUE
  - b) FALSE

71. **TRUE - FALSE:** It never snows in any of the “B” climate subgroup areas.
- a) TRUE
  - b) FALSE

**FOCUS YOUR ATTENTION ON THE TEMPERATE CLIMATES.**

72. Which subgroup of the warm midlatitude “C” climate group has a distinctive summer dry period?
- a) Cfa Humid subtropical
  - b) Cfb Marine West Coast
  - c) Cs Mediterranean
73. The humid subtropical climates of southeastern United States, southeastern China and southern South America are a result of **several unifying characteristics** that have joined to create subtropical conditions. **These conditions are:**
- a) mountains funneling moist westerly winds into each region.
  - b) onshore winds blowing over warm ocean current.
  - c) onshore winds blowing over cold ocean current.
  - d) cold offshore current and winds blowing from land to ocean.

**The coastal cities of Reykjavik, Iceland and Bergen Norway are located between 60° and 65° north latitude, yet both have moderate “C” climates.**

**74. Why are they so warm at such high latitudes?**

- a) At this latitude, there are equal hours of day and night throughout the year.
- b) Cloudless skies give maximum solar energy.
- c) The temperature of the North Atlantic Drift moderates the temperature.
- d) Mountain ranges protect the cities from cold Arctic air masses.

**London, Paris and Rome (located between 45° N -55° N) with a “C” climate are warmer than other cities of Eurasia at similar latitudes because of the influence of warm, moist air masses.**

**75. Eurasian cities located further east along the same latitudes are NOT affected by these air masses. Why?**

- a) High north-south mountains block the winds from flowing across Eurasia.
- b) Because of the great distances involved, the air masses lose their characteristics as they move eastward across Europe.
- c) The amount of solar energy received varies with longitude.
- d) Continental influence of the land warms the air in winter and cools it in summer.

**FOCUS YOUR ATTENTION ON THE COLD CLIMATES.**

**76. TRUE - FALSE:** The humid continental climate zones (D group) are found in both the northern and southern hemispheres.

- a) TRUE      b) FALSE

**77. The controlling factor for the existence of continental climates is**

- a) climatologic data.
- b) large landmass.
- c) mountains to cool the prevailing winds.
- d) vast expanses of oceans

**78. TRUE - FALSE:** The humid continental “D” climates extend further south along the eastern side of North America, Europe, and Asia than on their western sides.

- a) TRUE      b) FALSE

**79. All of the following statements support your answer to the previous question except:**

- a) On the east side of the continents, the prevailing winds blow from water to land, thereby cooling the landmasses.
- b) On the west side of the continents, the prevailing winds blow over warm currents, thereby moderating the climates at higher latitudes.
- c) On the east side of the continents, the prevailing winds blow the moderating influences away from the land.
- d) Winds coming from the west that had been moderated by the warm ocean currents lose their moderating characteristics while traveling over the continental land masses.

**80. Which subgroup of the Polar “E” climate never averages a monthly temperature above freezing?**

- a) ET      b) EF

**The MAP SECTION starts on next page >>**

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# MAP SECTION

Figure 1 Global wind systems

Figure 2 Wind zones

Figure 3 Surface ocean currents

Figure 4a and 4b World climates

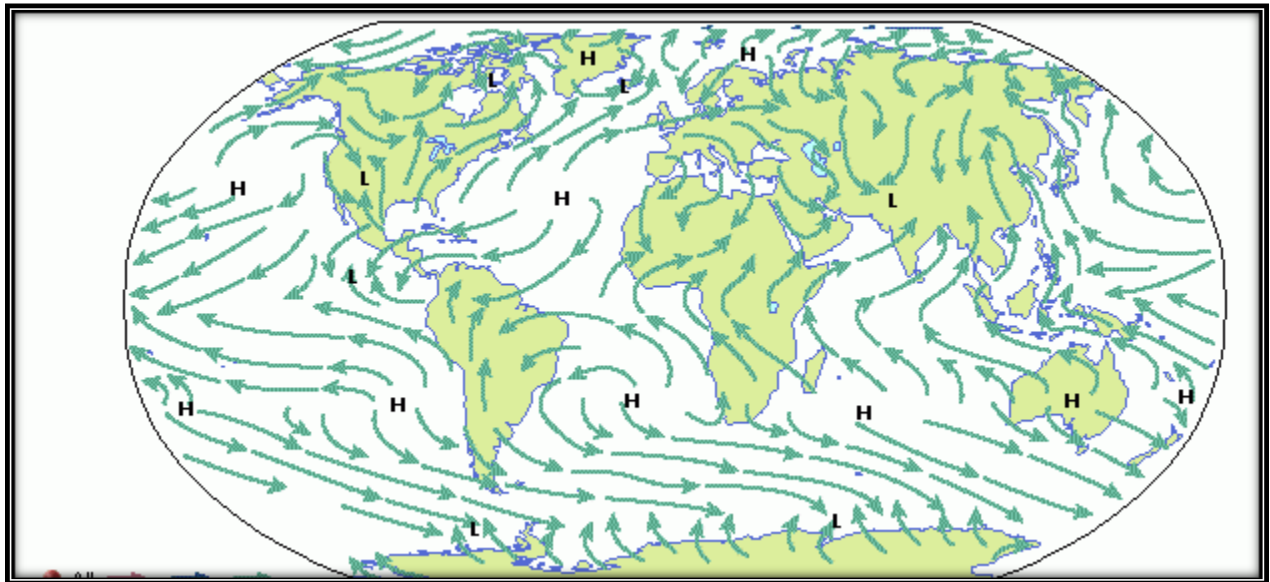


Figure 1. Global Wind Systems (H = high pressure cell; L = low pressure cell)

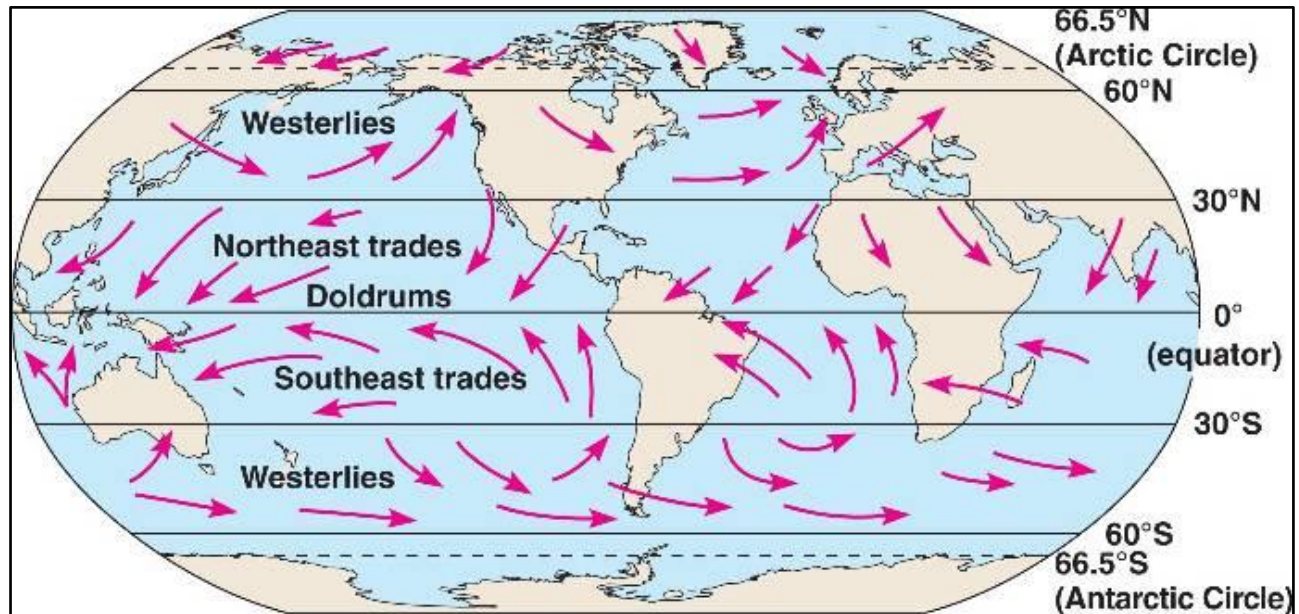


Figure 2. Named Wind Zones with Latitude Markers. The arrows indicate predominant wind direction.



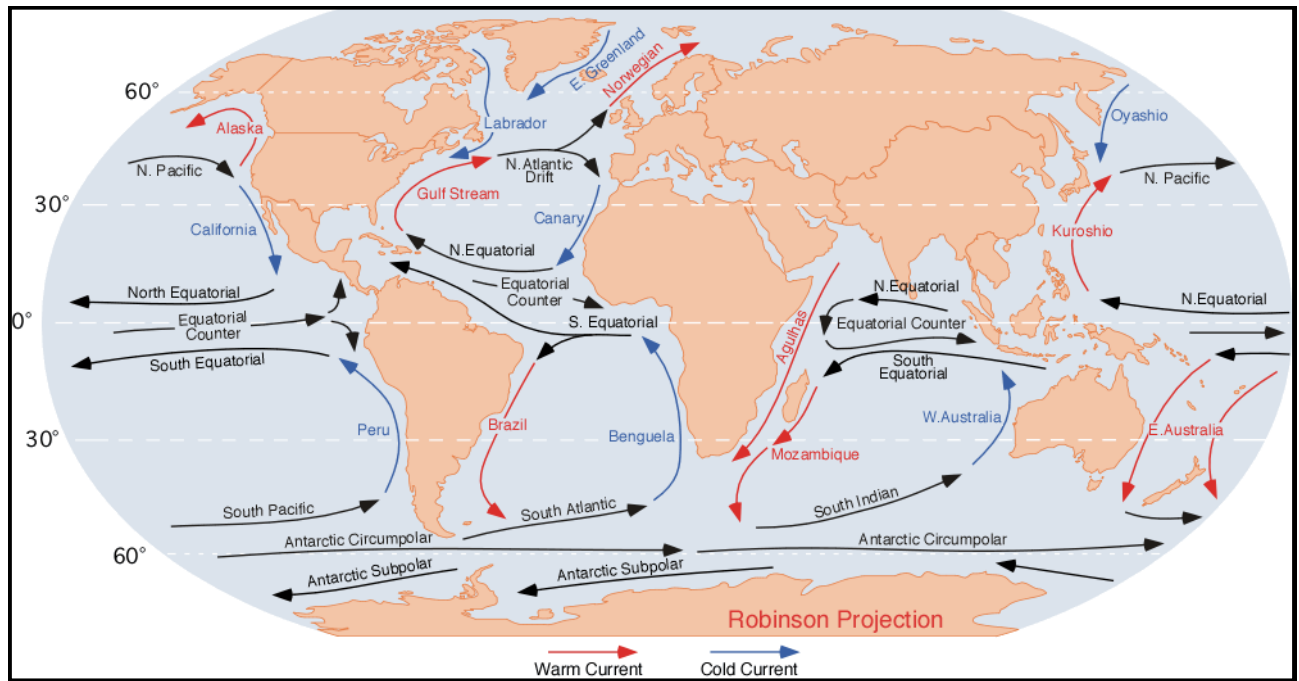


Figure 3. Surface ocean currents

# WORLD CLIMATES

## A HUMID EQUATORIAL CLIMATE

- Af No dry season
- Am Short dry season
- Aw Dry winter

## B DRY CLIMATE

- BS Semiarid
  - BW Arid
- } h=hot  
k=cold

## C HUMID TEMPERATE CLIMATE

- Cf No dry season
  - Cw Dry winter
  - Cs Dry summer
- } a=hot summer  
b=cool summer  
c=short, cool summer

## D HUMID COLD CLIMATE

- Df No dry season
  - Dw Dry winter
- } d=very cold winter

## E COLD POLAR CLIMATE

- E Tundra and ice
- ET EF

## H HIGHLAND CLIMATE

- H Unclassified highlands

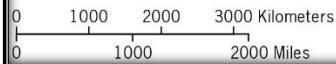


Figure 4a. World climate map (Köppen Classification System). Also consult map in textbook



**GEOG 101 SPRING 2020**  
**ANSWER KEY FOR EXTRA CREDIT II**

Clearly hand-print or type your answers in the space provided.

Scan or cut and paste the answer sheet into an email and  
send it to [agrande@hunter.cuny.edu](mailto:agrande@hunter.cuny.edu) no later than  
11 PM Tuesday, March 31, 2020

YOUR NAME: \_\_\_\_\_

GEOG 101 Extra Credit II

QUESTION NUMBER	ANS.	QUESTION NUMBER	ANS.	QUESTION NUMBER	ANS.	QUESTION NUMBER	ANS.
1		21		41		61	
2		22		42		62	
3		23		43		63	
4		24		44		64	
5		25		45		65	
6		26		46		66	
7		27		47		67	
8		28		48		68	
9		29		49		69	
10		30		50		70	
11		31		51		71	
12		32		52		72	
13		33		53		73	
14		34		54		74	
15		35		55		75	
16		36		56		76	
17		37		57		77	
18		38		58		78	
19		39		59		79	
20		40		60		80	