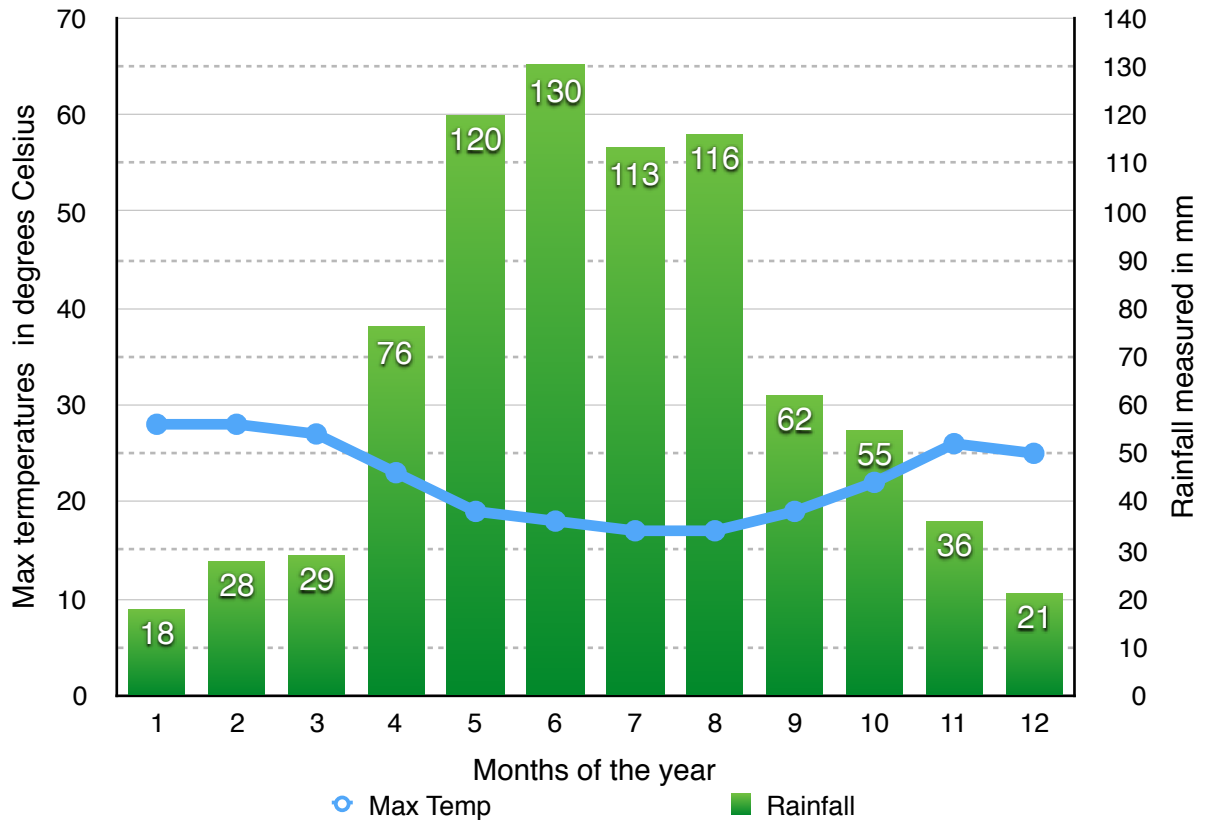


# Weather & Climate Graphs

**Question 1:** Refer to the climate graph below and answer the questions which follow:

**Average Annual rainfall and temperatures of Stellenbosch, SA**



1.1 In which month/s were the highest maximum temperatures recorded? (2)

1.2 In which month/s were the lowest rainfall recorded? (1)

1.3 What is the difference between the highest and lowest rainfall recorded? (2)

1.4 Temperatures above 20°C is recorded between \_\_\_\_\_ and \_\_\_\_\_ (2)

1.5 Give two months in which the average annual temperatures recorded were the same. (2)

1.6 Complete the following: (6)

Stellenbosch has a \_\_\_\_\_ climate with temperatures ranging between \_\_\_\_\_ and \_\_\_\_\_. The winters are \_\_\_\_\_ and the summers are relatively \_\_\_\_\_.

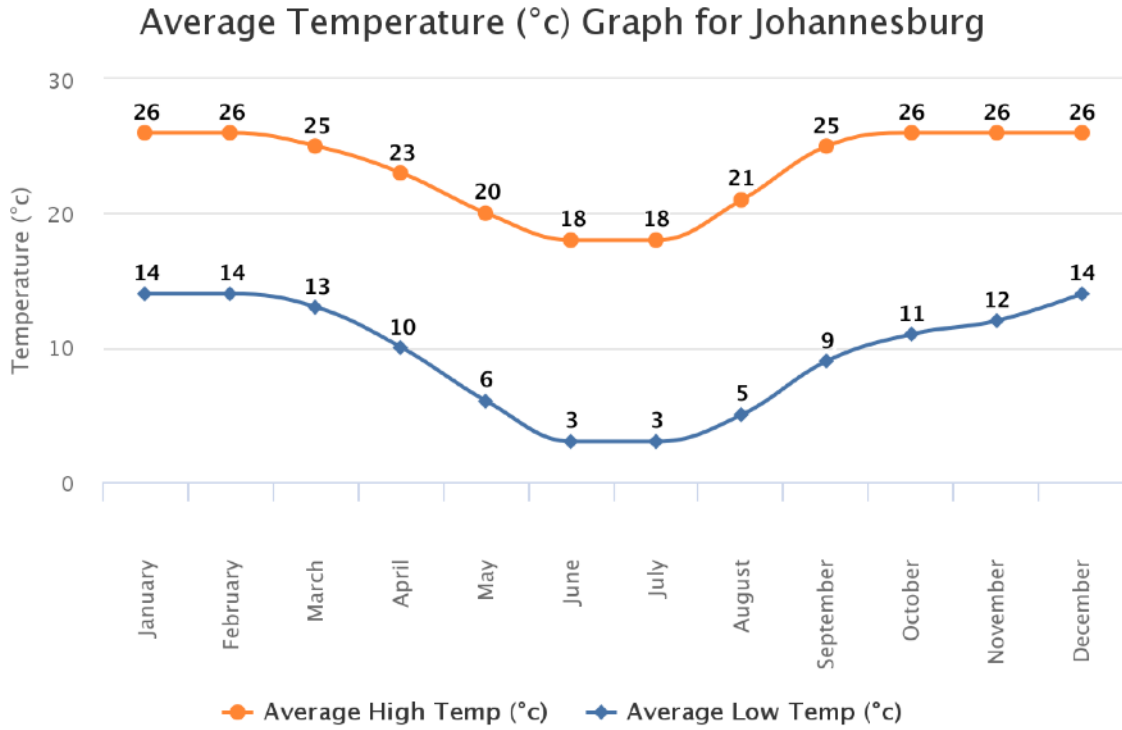
Stellenbosch is in the Western Cape, which is a \_\_\_\_\_ rainfall region.

1.7 Calculate the average **monthly** rainfall for Stellenbosch. (2)

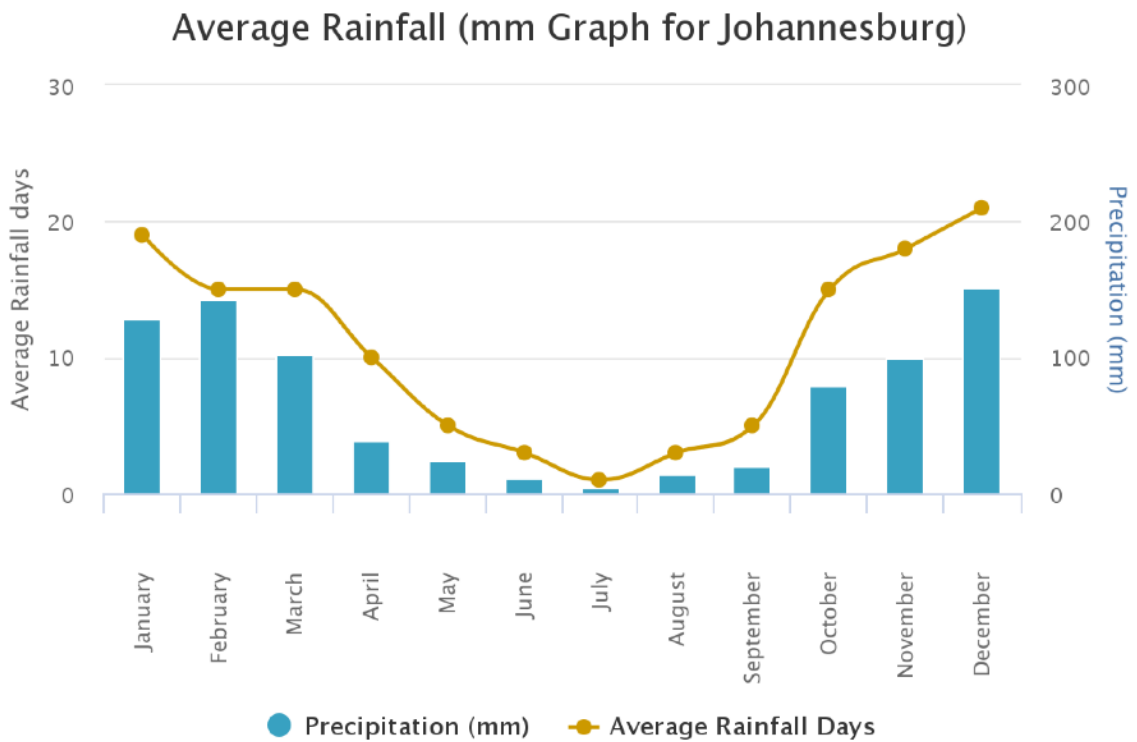
# Weather & Climate Graphs

**Question 2:** Refer to the climate graphs below and answer the questions which follow:

**Graph A:**



**Graph B:**



# Weather & Climate Graphs

**2.1 Graph A:**

2.1.1 In which month/s is the difference between minimum and maximum temperatures the greatest? Give the difference. (2)

---



---

2.1.2 Which months have the highest minimum temperatures? (3)

---



---

2.1.3 Calculate the average **monthly** maximum temperature for Johannesburg (round off to the nearest whole). (2)

---



---

2.1.4 Calculate the average day-time temperature for the month of March. (1)

---

**2.2 Graph B:**

2.2.1 In what season does Johannesburg have the lowest rainfall? (1)

---

2.2.2 Between which months is the average rainfall days above ten a month. (2)

---

2.2.3 Describe what “annual average rainfall” refers to. (2)

---



---



---

2.2.4 In which months is the average rainfall above 100 mm? (3)

---

**Question 3: Extension** - Use the following data to draw a climate graph of Manaus, Brazil: (6)

Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Max Temp in °C	31	30	31	31	31	31	32	33	33	33	21	31
Total Rainfall in mm	260	288	314	300	256	114	88	58	83	126	183	217

**MEMO:**

**Question 1:** Refer to the climate graph below and answer the questions which follow:

1.1 In which month/s were the highest maximum temperatures recorded? (2)

In January and February

1.2 In which month/s were the lowest rainfall recorded? (1)

In January 18 mm

1.3 What is the difference between the highest and lowest rainfall recorded? (2)

$130\text{mm} - 18\text{ mm} = 112\text{ mm}$

1.4 Temperatures above  $20^{\circ}\text{C}$  is recorded between October and April. (2)

1.5 Give two months in which the average annual temperatures recorded were the same. (2)

In January and February, July and August, or May and September

1.6 Complete the following:

Stellenbosch has a **mild** climate with temperatures ranging between  $15/16^{\circ}\text{C}$  and  $28/30^{\circ}\text{C}$ . The winters are **wet** and the summers are relatively **dry**. Stellenbosch is in the Western Cape, which is a **winter rainfall** region.

1.7 Calculate the average monthly rainfall for Stellenbosch. (2)

$18 + 28 + 29 + 76 + 120 + 130 + 113 + 116 + 62 + 55 + 36 + 21 = 804\text{ mm}$

$804\text{ mm} \div 12 = 67\text{ mm}$

2.1 **Graph A:**

2.1.1 In which month/s is the difference between minimum and maximum temperatures the greatest? Give the difference. (2)

June, July, August and September - difference of  $16^{\circ}\text{C}$

2.1.2 Which months have the highest minimum temperatures? (3)

December, January and February

2.1.3 Calculate the average monthly maximum temperature for Johannesburg (round off to the nearest whole). (2)

$26 + 26 + 25 + 23 + 20 + 18 + 18 + 21 + 25 + 26 + 26 + 26 = 280^{\circ}\text{C}$

$280^{\circ}\text{C} \div 12 = 23^{\circ}\text{C}$

2.1.4 Calculate the average day-time temperature for the month of March. (1)

$25^{\circ}\text{C} + 13^{\circ}\text{C} = 38^{\circ}\text{C}$        $38^{\circ}\text{C} \div 2 = 19^{\circ}\text{C}$

2.2 **Graph B:**

2.2.1 In what season does Johannesburg have the lowest rainfall? (1)

In Winter

2.2.2 Between which months is the average rainfall days above ten a month. (2)

October to March (Not April as it is exactly 10 days and not above 10 days)

2.2.3 Describe what "annual average rainfall" refers to. (2)

Average annual rainfall refers to rainfall measured over a number of years, recorded for each month. This gives an idea of what the climate and weather of a specific of region of city is in every month of the year.

2.2.4 In which months is the average rainfall above 100 mm? (3)

December, January and February

**Question 3: Extension** - Use the following data to draw a climate graph of Manaus, Brazil: (6)

Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Max Temp in °C	31	30	31	31	31	31	32	33	33	33	21	31
Total Rainfall in mm	260	288	314	300	256	114	88	58	83	126	183	217

*TIP: The temperature graph should be divided into increments with a maximum that is half of the maximum of the rainfall (if rainfall is higher than temperature).*

