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QUESTION 1

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## QUESTION 2

Kheletso is travelling around Kwazulu-Natal, visiting Parks and Reserves in the province. Study the map of the province and answer the questions that follow:

2.1. How many Parks and Reserves lie north of Zululand?

7parks (2)

2.2. Which highway links Pietermaritzburg with Estcourt?

N3 (2)

2.3. Which Game Reserve lies north west from Hluhluwe Imfolozi Park?

Itala Game reserve (2)

2.4. List the towns Kheletso will pass on the N2 from the Eastern Cape enroute to the Ukhahlamba Drakensberg

Kokstad, Swartberg and Underberg . (2)

2.5. Express the scale on the map in the form 1:\_\_\_\_\_cm. ( round off to nearest cm)

3,6 cm : 100km

3,6 : 100 x 100 000

1 : 2 777 777,77cm

1 : 2 777 778

(4)

2.6.1. Use the scale to determine the actual distance (to the nearest km), the crow flies from Dundee to Ballito.

$7\text{cm} \times 2\,777\,778 = 19\,444\,446\text{ cm} / 100\,000 = 194\text{ km}$

(3)

2.6.2. Kheletso calculates that her average speed for the trip from Dundee to Ballito will be 100km/h. How long would the trip take her? Give your answer in hours and minutes.

(4)

$$\text{distance} = \text{speed} \times \text{time}$$

$$\text{time} = \frac{\text{distance}}{\text{speed}}$$

$$= \frac{194 \text{ km}}{100 \text{ km/h}}$$

$$= 1,94 \text{ hrs}$$

$$= 1 \text{ h} + 0,94 \text{ hrs}$$

$$= 1 \text{ hr} + 0,94 \times 60$$

$$= 1 \text{ hr} + 56,4 \text{ min}$$

## Question 4

Looking at the Fifa Soccer World Cup you decided to compare how you felt the teams would do before the tournament. After doing some research you managed to find the following information represented in Addendum A.

4.1.1 How many Fifa World Cups have there been?

20

(2)

4.1.2 Has any team played in every World Cup? If so which team/s has done so?

Brazil

(2)

4.1.3 Germany is currently the number 1 ranked team in the world. What percentage of Fifa World cup's have they played in?

$18 / 20 \times 100 / 1 = 90\%$

(2)

4.2.1 Which country has had the best average attendance at the Fifa World cup?

USA in 1994

(2)

4.2.2 Looking at the last 5 World Cups what was the average (mean) attendance at the matches?

$$52\,918 + 49\,669 + 52\,491 + 42\,268 + 43\,517 = 240\,863$$

$$240\,863 / 5 = 48\,172,6$$

$$= 48\,173$$

(2)

4.2.3 What was the range of the number of games played at a Fifa World Cup?

$$64 - 17 = 47$$

(2)

4.2.4 What is the modal number of teams that have taken part in a Fifa World Cup?

32

(2)

4.3.1 Determine which country plays on average the most matches at the Fifa World Cup when they participate.

$$\text{Germany: } 106 / 18 = 5,89$$

(2)

4.3.2 Germany is currently ranked first in the world. What percentage of World Cups have they won?

$$4 / 20 \times 100 / 1 = 20\%$$

(2)

4.3.3 Looking at the info on the countries that have won the most World Cups, what percentage of Fifa World Cup's have been won by other countries?

$$20 - (5 + 4 + 4 + 2 + 2) = 3$$

$$3 / 20 \times 100 / 1 = 15\%$$

(3)

4.4.1 Which of the top 10 ranked countries has conceded the fewest goals at Fifa World Cups?

Portugal

(2)

4.4.2 What would the main reason be for them conceding the least number of goals?

They have played in the least world cups.

(2)

4.4.3 Looking at the 5 countries that have won the most Fifa World Cup's and looking at the top 10 ranked countries in the world. Which of those 5 countries are unlikely to win the Fifa World Cup this year. Give a reason?

Uruguay and Italy, they are no longer ranked in the top 10 countries.

Italy also didn't qualify for the Fifa World Cup in 2018.

(3)

4.4.4 Which country won the first Fifa World cup and what was significant about this win for the country?

Uruguay, they were also the hosts of the first World Cup.

(3)

Total 31

**Memo**  
**Question 5**

James and Sally have decided to go on holiday in Cape Town.  
Their return flights from JHB to CT are listed below.

| Departing Flight   |          |       |           |      |
|--------------------|----------|-------|-----------|------|
| Friday, 4 May 2018 | 5:55 JHB | FA200 | 8:10 CPT  | R999 |
|                    |          |       |           |      |
| Returning Flight   |          |       |           |      |
| Sunday, 13 May     | 8:00 CPT | FA100 | 10:05 JHB | R999 |
|                    |          |       |           |      |

The screenshot displays three fare options for a flight from Johannesburg to Cape Town:

- Lite:** Budget Fare, Hand Luggage, Checked-in Bag (Optional). Price: R799.
- Standard (RECOMMENDED):** Value Fare, Checked-in Bag (20kg), 2 Flight Changes, Priority Boarding. Price: R999.
- Premium:** All-in Fare, 2 x Checked-in Bags (23kg), Special Equipment, Unlimited Flight Changes, Priority Boarding, Refundable To Voucher, Reserved Seat. Price: R1,298.

- 5.1 How long will it take them to fly from Johannesburg to Cape Town? (2)  
2 hours √ 5 minutes √
- 5.2 What is the flight number of their returning flight? (2)  
FA 100 √
- 5.3 How many nights will James and Sally be staying in Cape Town for? (2)  
9 nights √
- 5.4 What is the total cost of their return flight to Cape Town from Johannesburg? (2)  
 $R999 + R999 = R1998$  √
- 5.5 Which flight option has James chosen for his flight? Lite, standard or Premium (2)  
Standard √
- 5.6 The check in counter closes 40 minutes before departure time. At what time must James and Sally be at the check in counter if they want to get there 15 minutes before the check in counter closes for their return flight. (3)

$$40 + 15\sqrt{ } = 55 \text{ min}\sqrt{ } \text{ They need to be there at } 9:10\sqrt{ }$$

5.7 The luggage policy for Safair airlines is as follows:

Hand luggage weighing in excess of 7 kg per bag or which is too large to fit into the overhead stowage compartments will need to be checked in the hold and a checked bag fee would be applicable. **Hand luggage maximum size dimensions (56 x 36 x 23cm). Checked-in baggage maximum size dimensions (90 x 75 x 43cm).**

(2)

Calculate the volume of the allowed hand luggage.

$$56 \times 36 \times 23\sqrt{ } = 46368 \text{ cm}^3\sqrt{ }$$

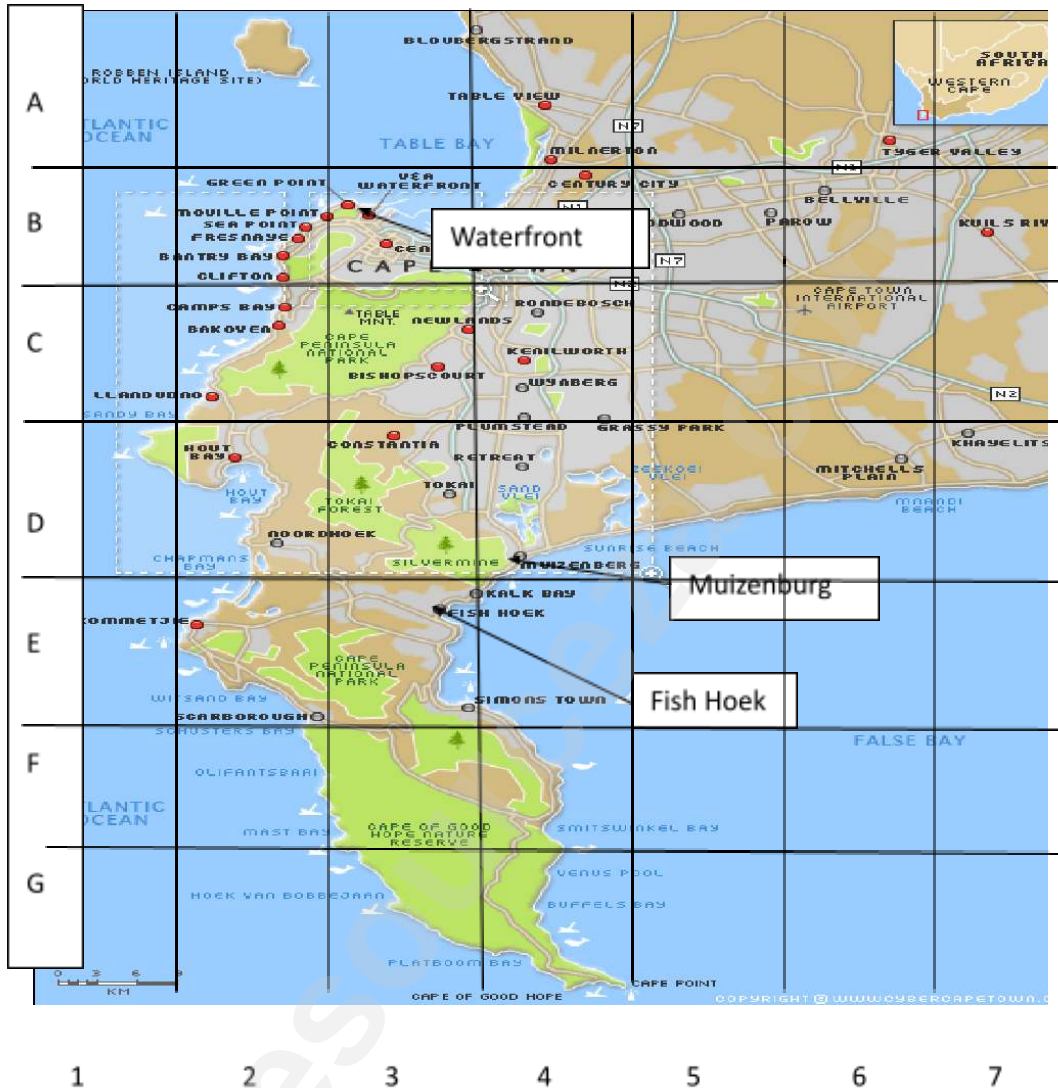
5.8 James has decided to leave his car at the long-term parking at OR Tambo. He parks his car there at 4:00am on 4 May and fetches at 11:00am on 13 May. Using the tariffs below calculate what it will cost him to leave his car there.

| Long Stay parking tariffs                   |                 |
|---------------------------------------------|-----------------|
| Time Period                                 | Parking Tariffs |
| 0 - 24                                      | R50             |
| R42 for each extra 12 hours or part thereof |                 |

(4)

$$(9 \times R50 )\sqrt{ } + \sqrt{ } ( 1 \times R42) = R492\sqrt{ }$$

- 5.9 James and Sally have rented a car and will use the map of Cape Town below to get around Cape Town. Use the map to answer the questions which follow.



- 5.9.1 James and Sally are going to stay in a guest house in Fish Hoek. Give the grid reference of Fish Hoek. (2)  
E3✓✓
- 5.9.2 Sally has heard that there is an excellent seafood restaurant in Muizenberg. In which direction will they have to travel from Fish Hoek to get there? (2)  
NE✓✓
- 5.9.3 James and Sally would like to visit the Waterfront. They have been told that it is best to go through Noordhoek to get there. Name two towns (other than Noordhoek) they will travel through. (2)  
Llandudno, Bakoven, Camps Bay, Clifton, Bantry Bay, Sea Point  
(Any 2) ✓✓

- 5.9.4 James and Sally discovered an ice-cream shop at the waterfront. The shop has three flavours of ice cream – **chocolate, Vanilla and strawberry** and three choices of topping on the ice cream – **nuts, jelly tots and smarties**. What is the probability if James decides to have an ice cream he will have vanilla ice cream with smarties as a topping. (3)

$$\frac{1}{3} \times \frac{1}{3} = \frac{1}{9}$$