

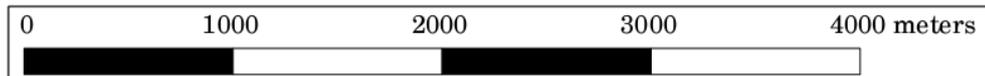
Monyetla Bursary Project

Grade 11

Lesson 3: Maps and Plans Questions

QUESTION 1:

- 1.1 Consider the bar scale below and answer the questions that follow:



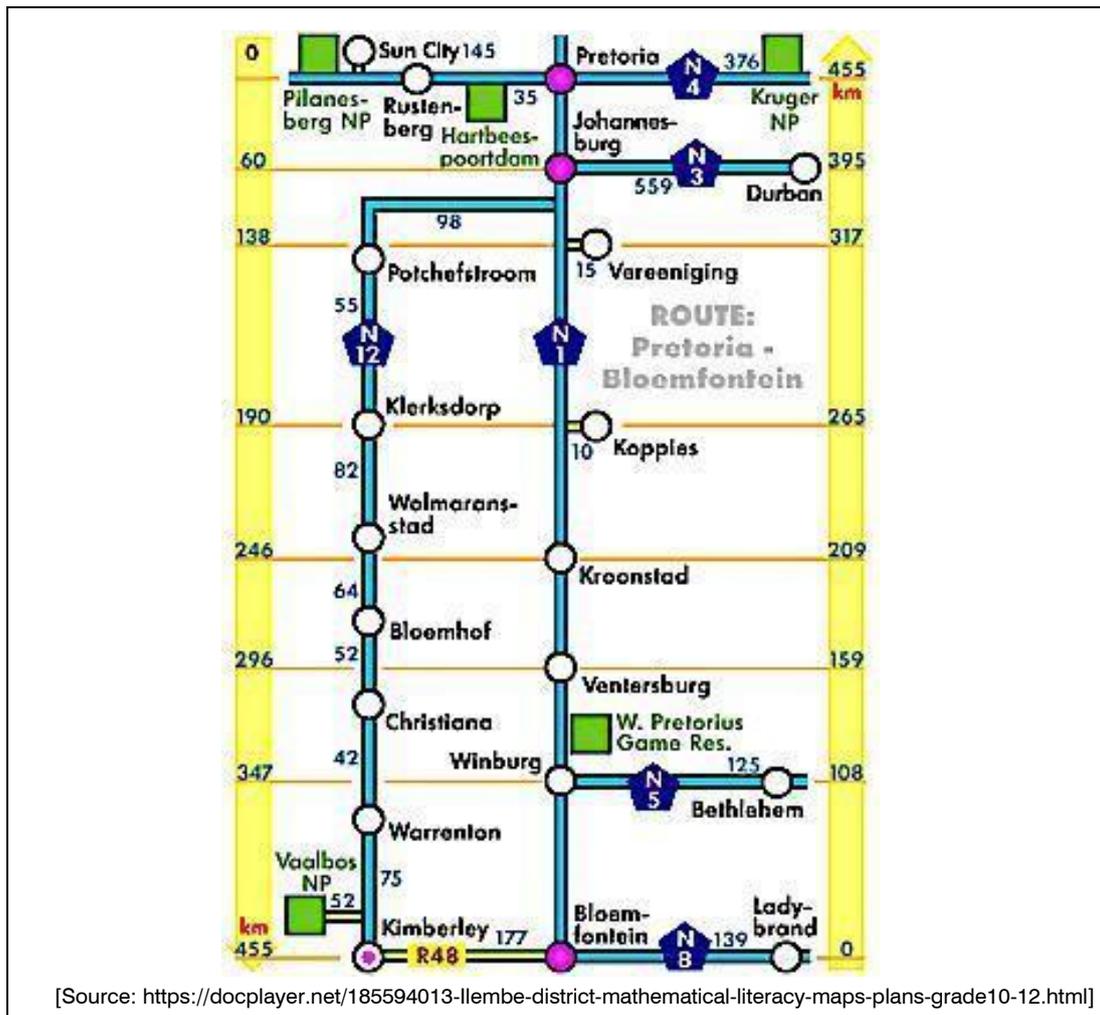
[Adapted from: https://docs.qgis.org/2.18/en/docs/gentle_gis_introduction/map_production.html]

- 1.1.1 Define the meaning of the scale 1 : 50 000 in your own words. (2)
- 1.1.2 Determine the number of kilometres represented by 9 cm. (3)
- 1.1.3 If the distance from the school to the mall on the map is 5 cm, calculate the actual distance in kilometres. (3)
- 1.2 Use the scale 1 : 125 000 to determine:

- 1.2.1 The real distance (in km) between two points on the map if the length between them is 35 cm. (3)
- 1.2.2 The length of the map (in cm) if two points are 25 km apart in real life. (3)

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QUESTION 2:



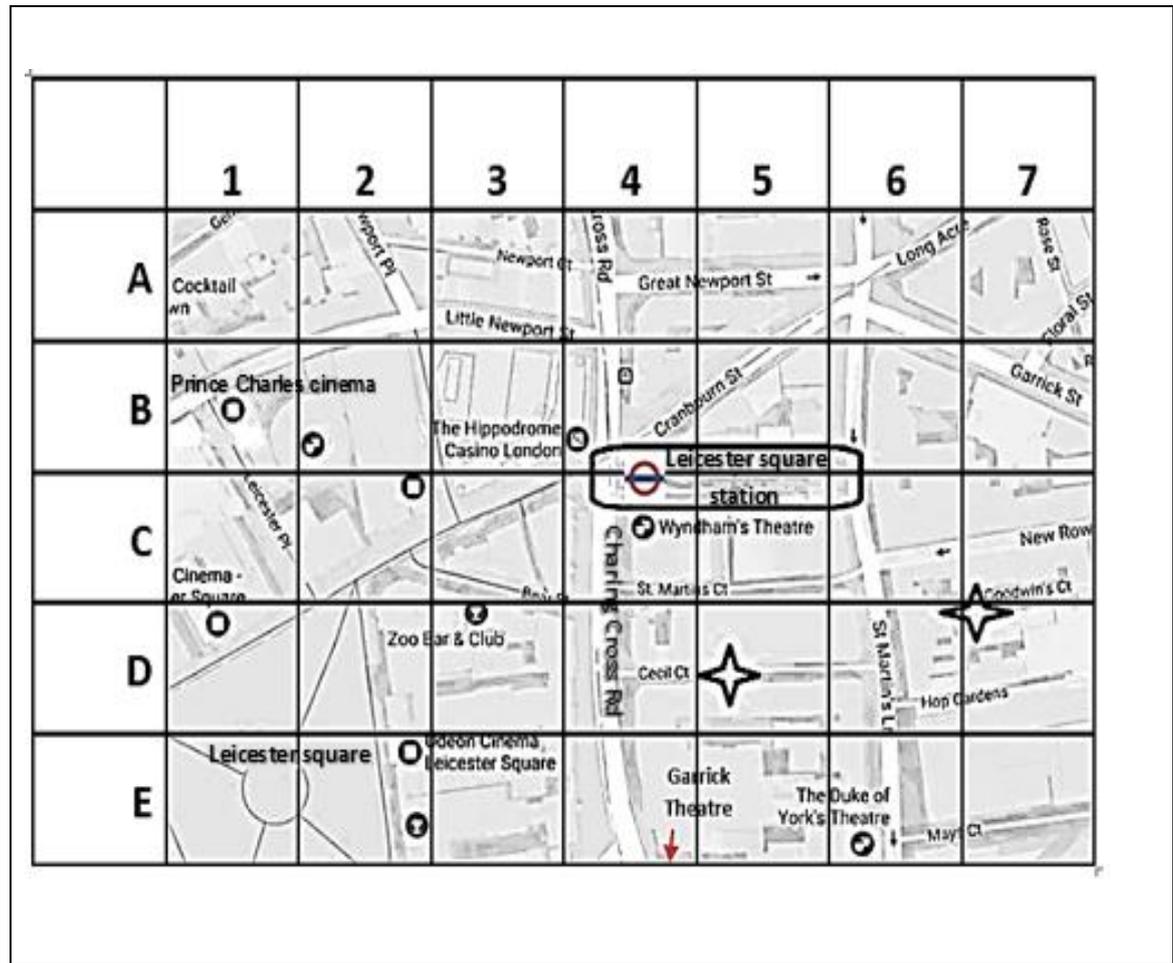
- 2.1 Identify the type of map displayed above. (2)
 - 2.2 Calculate the distance between Bloemfontein and Pretoria. (2)
 - 2.3 Determine the number of national roads found on the map. (3)
 - 2.4 Identify the national road from Bloemfontein to Johannesburg via Kimberley. (2)
 - 2.5 Calculate the total distance from Ladybrand to Koppies. (3)
 - 2.6 Thandi took 4 hours and 45 minutes to travel from Bloemfontein to Pretoria. Calculate Thandi's speed (in km/h). (4)
- Use the formula: **distance = speed x time** (4)

2.7 The national parks are all indicated with a square symbol on the map. If you travel to a national park, what is the probability of you ending up at the Kruger National Park? Give your answer as a percentage (4)

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QUESTION 3:

3.1. Use the Grid block below to answer the questions that follow:



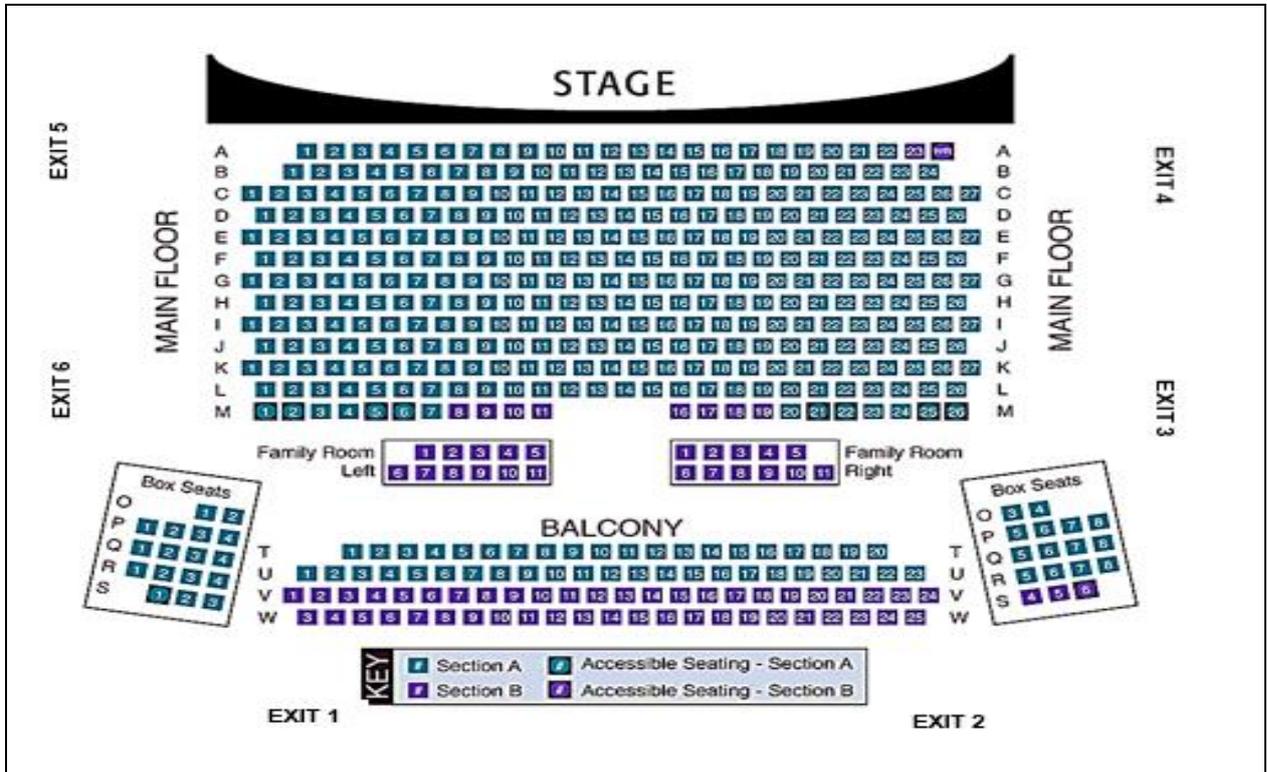
3.1.1 In which grid reference will you find Prince Charles Cinema? (2)

3.1.2 If you were travelling from Leicester Square to Hippodrome Casino, in which general direction would you be travelling? (2)

- 3.1.3 On the map you will find a number of theatres, cinemas and pubs. (2)
What type of brochure would you find this map in?
- 3.1.4 If you were travelling on Charing Cross Rd in a Northerly direction, (2)
identify the entertainment venue you will pass.
- 3.1.5 You need to give your friend a set of directions from the Leicester (3)
square station to the Prince Charles Cinema. Write a set of clear
instructions for your friend to get to the cinema.
- 3.1.6 Would it be possible to calculate the exact distance from Leicester (3)
Square Station to the Duke of York's theatre (E5)? Give a reason
for your answer.

3.2 The grade 11 class are going to the theatre to see a production of Hamlet. The seating plan below shows the categories of the seats, with the main floor being the best seats in the theatre.

Study the seating plan below and answer the following questions.



The prices of the production are as follows: R200, R250, R320, R400

They school decides to go for the tickets costing R250.00. The learners can sit in Rows I to M.

- 3.2.1 Explain Why the first 5 rows in the centre would be the most expensive. (3)
- 3.2.2 If there are 50 learners and 2 teachers going, how much will the tickets cost if each Learner had to pay full price and the teachers went free of charge? (2)
- 3.2.3 If they were allowed to use rows I to M, how many rows would they fill up? (2)
- 3.2.4 If you were sitting 3 rows from the back, and sitting 5 seats from the isle on the right, which seat were you sitting in? (2)

- 3.2.5 How many spaces were reserved for disabled people? (2)
- 3.2.6 If you were sitting in seat I8, which exit would be the easiest for you to use? Give a reason for your answer. (3)
- 3.2.7 If the theatre was completely sold out, what is the probability that there all the disabled spots will be taken? Give your answer as a percentage. (2)

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