

OWN REPRESENTATION OF DATA*

Siyavula Uploaders

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1 MATHEMATICS

2 More Geometry, Data Handling and Probability

3 EDUCATOR SECTION

4 Memorandum

14.1 – 14.5 Check learner’s efforts

14.4 Fanta

14.5 R25,00

15.1 (a) half past eight

(b) 1 hour 40 min

(c) 53 min

(d) half past six

(e) 55 min

(f) 18 hours

15.2 (a) 14 000 km

(b) 14,7 hours

(c) approximately 7 200 km

(d) 600 km/h

(e) approximately 49 and a half

(f) 12 hours 47 min

(g) 08:05

(h) 07:05

(i) “Daylight saving” –use as much sun as possible.

(j) USA

5 LEARNER SECTION

6 Content

6.1 ACTIVITY: Own representation of data [LO 5.5, LO 5.8, LO 5.9, LO 4.1]

14. OWN REPRESENTATION OF DATA:

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14.1 Vusi, a learner in Grade 7, was seriously sick and had to go to hospital. The nurse took his temperature regularly

08:00 37,8°
 10:00 38,2°
 12:00 38,4°
 14:00 37,6°
 16:00 38°
 18:00 39,2°
 20:00 38,8°

- Represent the information on a line graph.

14.2 In a certain town water is consumed as follows:

gardening 32%
 laundry and dishes 15%
 toilets 28%
 bathing 20%
 cooking and drinking 5%

- Represent the information by means of a pie graph

14.3 During the election of prefects at Sunshine Primary School, Stephanie received 80 votes, Tamara received 120 votes, Buck 60 votes and Sean 140 votes.

- Draw a pictogram to indicate the position of the votes.

14.4 Draw a column/bar graph to represent the sales of cool drink during the year:

Lemonade 22 000 litres
 Fanta 38 000 litres
 Coke 45 500 litres
 Cream soda 20 500 litres
 Tab 43 250 litres

- The sales of which cool drink are the closest to the average sales of all the cool drinks?

14.5 BRAIN-TEASER!

- Can you show the following information on the same graph?

Jan Feb Mar Apr May

	Jan	Feb	Mar	Apr	May
Price of Cheddar cheese per kg	R12.50	R15.00	R12.50	R17.50	R22.50
Price of Sweet milk cheese per kg	R17.50	R22.50	R12.50	R20.00	R25.00

Table 1

(Hint: draw up a double column graph!)

- Why, do you think, does the price vary from month to month?

- How much more would you have paid for Sweet milk cheese in February than in January?

15. INTERPRETATION OF DATA

15.1 Look at the TV guide and answer the following questions.

M-NET	
Monday, 2 September	
06:00 Supersport	Golf: The pitch and Putter
07:15 World of Rugby	
07:45 Soccer:	Western Union World Football
08:15 Surfing	
08:30 Aerobic exercises	
09:00 Infomercials	
10:00 CSI	
11:00 "What women want"	(Comedy, PG13 S, 2000) A charming flatterer who believes all women find him desirable, suddenly develops the ability to hear what women are thinking. With Mel Gibson and Helen Hunt.
13:05 Infomercials	
17:00 Maybe its me	
17:30 Married with children	
18:00 Egoli – place of gold	
18:30 Big Brother II	
19:02 Once and Again	
19:55 M-Net cares	
20:00 "Dancing in September"	(Drama, 13 VL 2000) A satire about the TV industry.
22:05 Bellevue	– inside out (Documentary): Treatment in a Psychiatric Emergency Unit
23:15 Supersport timeout	
23:20 Braveheart	(Action, 16 V, 1995)
03:20 * Deep in my heart	(Drama, 13 V, 1999): With Gloria Reuben and Anne Bancroft
05:00 Tennis:	American Open

Figure 1

- a) At what time can you look at the aerobic exercises? _____
- b) How long is the drama “Deep in my Heart”? _____
- c) How long is the program “Once and Again”? _____
- d) At what time can you watch Big Brother II _____
- e) How long must you wait after “What women want” before you can watch KTV _____
- f) How long is the whole broadcast on this particular day? _____
- g) How much time do YOU spend every day, on average, watching TV? _____

15.2 Study the world map and the given scale and determine:

Image not finished

Figure 2

- a) What is the distance from Cape Town to New York? _____
- b) If an aeroplane flies at 950 km/h, how long is it going to take for you to fly from Cape Town to New York? _____
- c) How far is it from Perth to Los Angeles? _____
- d) At what speed are you travelling if it takes you 12 hours to cover the distance at c? _____
- e) If you could walk at a speed of 8 km/h from Tokyo to London, then about how many days will it take you to complete the distance? _____
- f) If you leave Cape Town at 20:18 and arrive in London the following morning at 09:05 (S.A. time), how long does your journey last? _____
- g) What time will it be in England (March to September)? _____
- h) What time will it be in England (September to March)? _____
- i) Why does England adapt her time in this way? _____
- _____
- j) Where else in the world is time also adapted in this way? _____

7 Assessment

Learning Outcome 4: The learner will be able to use appropriate measuring units, instruments and formulae in a variety of contexts.

Assessment Standard 4.1: We know this when the learner solves problems involving time, including relating time, distance and speed;

Learning Outcome 5: The learner will be able to collect, summarise, display and critically analyse data in order to draw conclusions and make predictions, and to interpret and determine chance variation.

Assessment Standard 5.5: We know this when the learner organises (including grouping where appropriate) and records data using tallies, tables and stem-and-leaf displays;

Assessment Standard 5.8: We know this when the learner draws a variety of graphs by hand/technology to display and interpret data (grouped and ungrouped);

Assessment Standard 5.9: We know this when the learner critically reads and interprets data presented in a variety of ways to draw conclusions and make predictions sensitive.