



education

DEPARTMENT: EDUCATION  
MPUMALANGA PROVINCE

# Grade 12

## Supplementary Study Material

# Mathematical Literacy



**GOAL**  
EDUCATION  
FOR ALL

## Together Educating the Nation

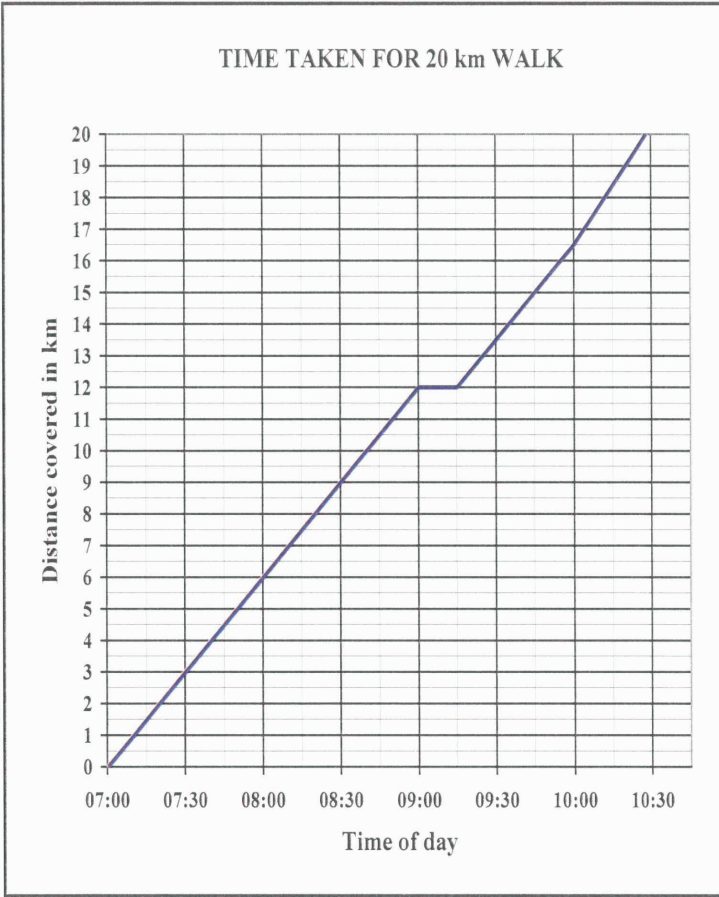
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INSTRUCTIONS AND INFORMATION

1. This question paper consists of SEVEN questions. Answer ALL the questions.
2. QUESTIONS 2.2.4 and 6.3.2 must be answered on the attached ANNEXURES. Write your centre number and examination number in the spaces provided on the ANNEXURES and hand in the annexures with the ANSWER BOOK.
3. Number the answers correctly according to the numbering system used in this question paper.
4. Start EACH question on a NEW page.
5. An approved non-programmable, non-graphical calculator may be used, unless stated otherwise.
6. ALL the calculations must be clearly shown.
7. ALL the final answers must be rounded off to TWO decimal places, unless stated otherwise.
8. Write neatly and legibly.

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- 1.2 Jane participated in a sponsored 20 km walk to raise funds for Aids orphans. The organiser encouraged the walkers to have a fifteen minute rest during the walk. The graph showing the distance covered by Jane against the time taken by her, is shown below.



- 1.2.1 At what time did the walk start?

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QUESTION 1

- 1.1 Do the following calculations: (Show ALL calculations in full.)
- 1.1.1 Write 47% as a common fraction.
  - 1.1.2 Write  $\frac{78}{120}$  as a decimal fraction.
  - 1.1.3 Simplify:  $1,2 \text{ m} + (23,5 \text{ m} \times 5) - 4,7 \text{ m}$
  - 1.1.4 Simplify:  $\frac{1}{3} \times (3)^3 + \sqrt{64}$
  - 1.1.5 Calculate 14% VAT on R24 650,00.
  - 1.1.6 Convert R1 500 into euros (€). Use the conversion  $\text{R}1 = \text{€}0,11$ .
  - 1.1.7 Increase R1 250,00 by 24%.
  - 1.1.8 Calculate the number of 30 g portions of jam that can be obtained from a 450 g tin.
  - 1.1.9 Determine the cost of 6 bus tickets using the formula:  
  
**Cost of bus ticket = number of bus tickets  $\times$  R12,15**

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QUESTION 2

- 2.1 Mr Morai, the gardener at a school, created a circular flower-bed in a rectangular lawn, as shown in the diagram alongside.
- The radius of the flower-bed is 1,5 m.
- The length of the rectangular lawn is 6 m and the breadth is 4 m.
- 
- Calculate the following:
- 2.1.1 The area of the flower-bed.  
Use the formula: **Area** =  $\pi r^2$ , where  $\pi = 3,14$  and  $r$  = radius
  - 2.1.2 The perimeter of the rectangular lawn.  
Use the formula: **Perimeter** =  $2(l + b)$ , where  $l$  = length and  $b$  = breadth
  - 2.1.3 The length of the lawn in feet if 1 m = 3,25 feet.
- 2.2 Learners were invited to enter a national essay-writing competition. The 70 winners attended a Youth Forum in Johannesburg.
- A survey was done to find out how many winners came from each province. The results are given in the table alongside.
- | PROVINCE      | NUMBER OF WINNERS |
|---------------|-------------------|
| Eastern Cape  | 8                 |
| Free State    | 6                 |
| Gauteng       | 10                |
| KwaZulu-Natal | 11                |
| Limpopo       | 8                 |
| Mpumalanga    | 7                 |
| Northern Cape | 5                 |
| North West    | 6                 |
| Western Cape  | 9                 |
| <b>TOTAL</b>  | <b>70</b>         |







































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