TOM NEWBY SCHOOL EXAMINATION

Subject	**MATHEMATICS**	**Examiner**	**MRS. R. VAN SCHALKWYK**
Date	**11 NOVEMBER 2016**	**Total marks**	**75**
Session	**1**	**Duration**	**2 HOURS**
Grade	**4**	**Moderator**	**MRS. M FOURIE**
Special instructions/ Equipment	**INSTRUCTIONS:**		

This Mathematics Exam has been compiled using notes and information contained in the Tom Newby School book. The marking memorandum has been compiled accordingly. While alternative responses will be given due acknowledgement, the official memorandum will be considered a priority document to ensure uniformity of marking.

NAME AND SURNAME: _____ **GRADE 4** ____

INSTRUCTIONS:

1. Read each question twice carefully.
2. Write all numbers neatly and clearly.
3. Show ALL calculations.
4. Check your work.
5. GOOD LUCK!

SECTION A — WHOLE NUMBERS — [33m]

QUESTION 1

Calculate and fill in the answers.

a. The next even number after 2 599 is _____

b. Round 7 965 off to the nearest 100. _____

c. Round 8 646 off to the nearest 1 000. _____

d. Complete the number sentence below.

(4 x 25) + _____ = (3 x 20) + 240

e. Expand the number 6 915:

(6 x _____) + (9 x _____) + (1 x _____) + (5 x _____)

f. Double the number 5 472 _____

g. Halve the number 6 530 _____

h. Write as a number: ten thousand eight hundred and twelve.

_____

i. Give the total of the number values of the underlined digits in

12 987. _____

j. Make the biggest odd number using all the digits below:

0 3 6 1 _____

k. What are the factors of 8? _____

l. What is the product of 12 and 100? _____

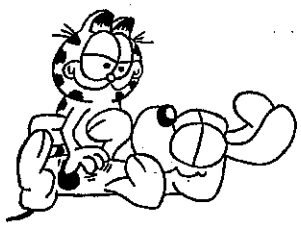
(12)

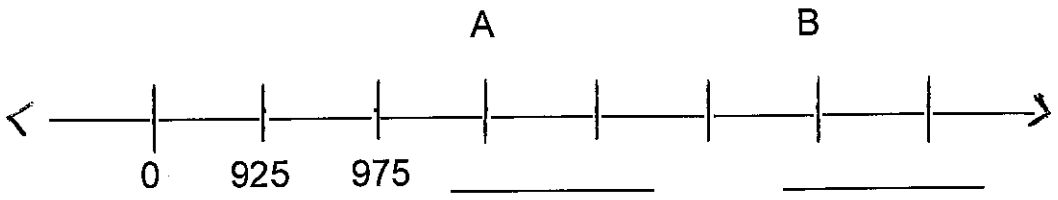
QUESTION 2

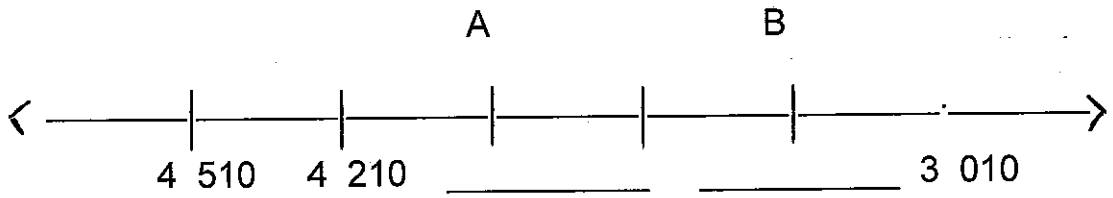
Fill in the missing numbers by completing the number patterns, number lines and spider diagram.

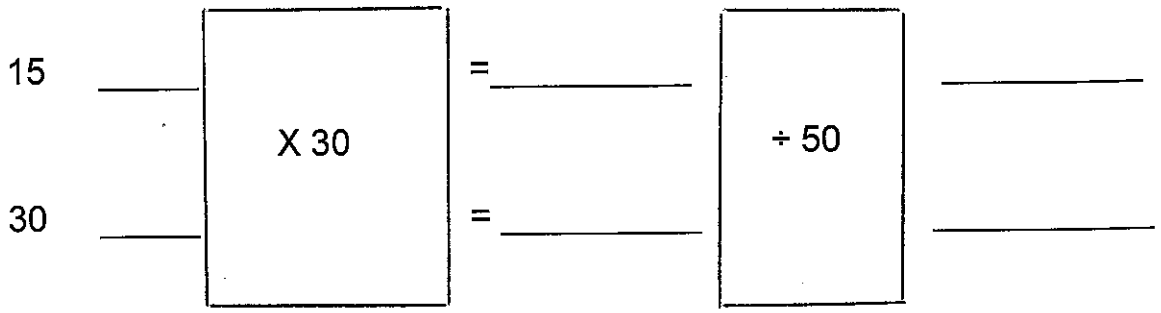
3 650 , 3 850 , 4 050 , _____ , _____

8 520 , 8 020 , 7 520 , _____ , _____









(6)

QUESTION 3

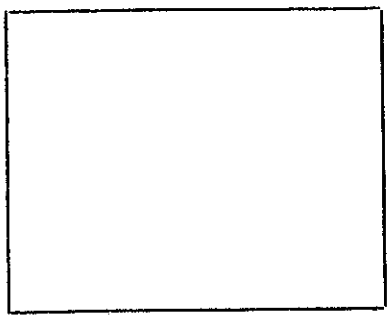
Check if the following calculations are correct. Remember you use the opposite calculation.

a. ACTUAL CALCULATION

$$\begin{array}{r} 4\ 678 \\ +\ 3\ 572 \\ \hline 8\ 250 \end{array}$$

CHECKING

b. $5\overline{)126}$ = 25 r 1



(2)

QUESTION 4

Calculate the answers. Show all the steps of the method you use and the answers clearly.

8 756 + 4 914 = a

(2)

6 495 - 2 639 = b

(2)

59 x 16 = c

(3)

496 ÷ 9 = d

(3)

(10)

QUESTION 5

Problem Solving. Remember to give an open number sentence and calculation.

b. There was 750 l of water in the rain tank. If we used 320 l on Monday and another 170 l on Tuesday, how much water is left?

_____

_____

_____

_____

(3)

SECTION B **TIME AND FRACTIONS** **[14m]**

QUESTION 1

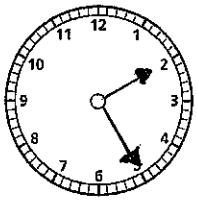
Fill in > , < or =.

2 ½ hrs	_____	150 min	16 days	_____	2 weeks	
¼ day	_____	8 hrs	2 years	_____	24 month	(2)

QUESTION 2

Read and write the time shown on the clocks in digital and analogue time.

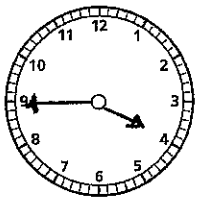
a.



(p.m.)

_____

b.



(a.m.)

_____

(4)

QUESTION 3

Calculate the following answers:

a. The nurse works from 6 a.m. to 6 p.m. from Tuesday to Friday. How many hours does she work per week?

Calculation:

Answer:

b. Grandma was born in 1938. How old will Grandma be this year?

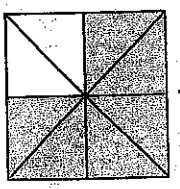
Calculation:

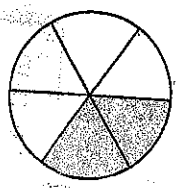
Answer:

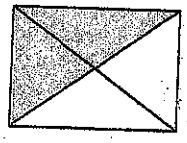
(2)

QUESTION 4

a. What fraction of each diagram is shaded in?

 ——

 ——

 ——

(1 ½)

b. Use the diagrams above to guide you and give an equivalent fraction for:

$\frac{3}{4} = —$ $\frac{1}{3} = —$ $\frac{1}{2} = —$

(1 ½)

c. Calculate the following fractions.

$\frac{4}{7} + \frac{2}{7} = —$ $\frac{8}{10} - \frac{3}{10} = —$

(1)

d. Dad takes a quarter of an hour to fix the leaking taps in our house. How many minutes is that? Please complete the open number sentence and calculation.

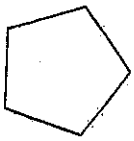
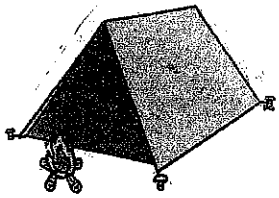
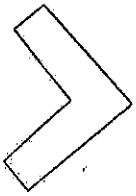
____

of _____ = _____ min. (2)

SECTION C GEOMETRY [10m]

QUESTION 1

Name the shapes below:

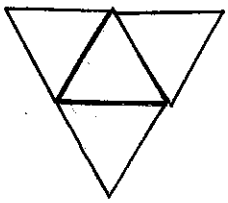
_____ _____ _____ _____

(4)

QUESTION 2

If you cut out the net below, what shape would it make?

Underline the correct answers in each bracket.



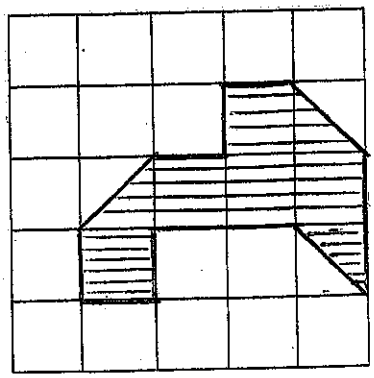
This is a (2-D , 3-D ,) shape called a (rectangular prism, triangular pyramid, square pyramid, triangular prism) which has (3, 4, 5) faces and (3, 4, 5) vertices.

(2)

QUESTION 3

What is the perimeter and area of the shape drawn below?

Each block is = 1 cm.



Perimeter = _____

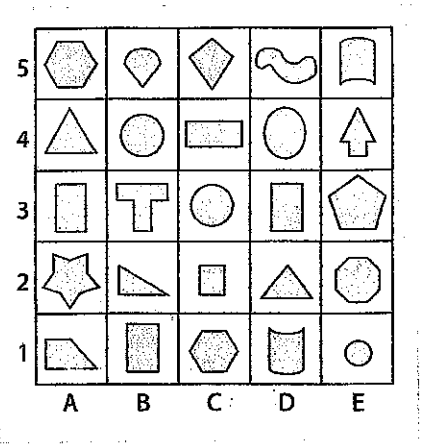
Area = _____ (2)

QUESTION 4

Look at the grid below and give the position of each of the following:

a. the kite b. the star c. the pentagon d. the trapezium

_____ _____ _____ _____



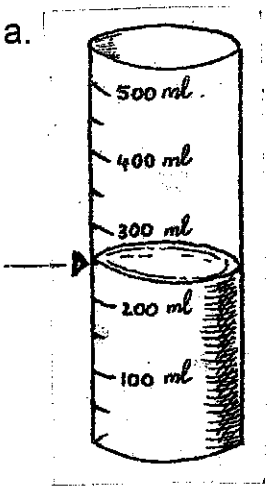
(2)

SECTION D DECIMAL FRACTIONS [11m]

QUESTION 1

Give the readings indicated by the arrows on each object and convert the amounts.

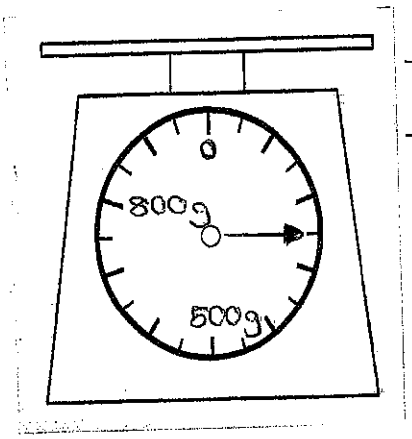
a.



_____ml

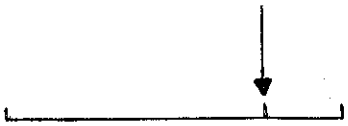
_____l

b.



_____g

_____kg

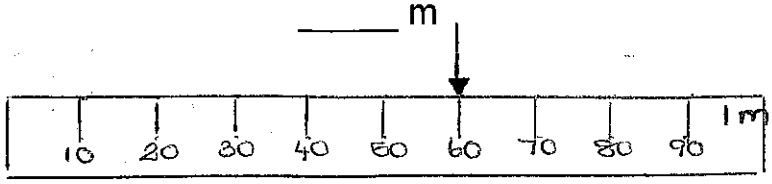


c. _____ mm

_____cm

d. _____ cm

_____ m



(8)

QUESTION 2

Study the pictures below and complete the questions.

Dress @ R365,95 T-shirts 2 pack @ R90 sandals @ R145,50

a. If your mom bought two dresses and a pair of sandals, what would she pay? Show your calculation. (2)

_____

_____

_____

_____

b. Would it be cheaper to buy a 2 pack of t-shirts @ R90 or two single t-shirts at R47 each? _____ (1)

_____

SECTION E DATA HANDLING [7m]

QUESTION 1

The table below compares the Grade 4 and Grade 5 learners' favourite subjects.

Subjects	Grade 4	Grade 5
Social Sciences	4	6
Languages	6	10
Mathematics	15	12
Natural Sciences	5	2

a. How many learners from each Grade took part in this survey?

Grade 4 = _____ Grade 5 = _____

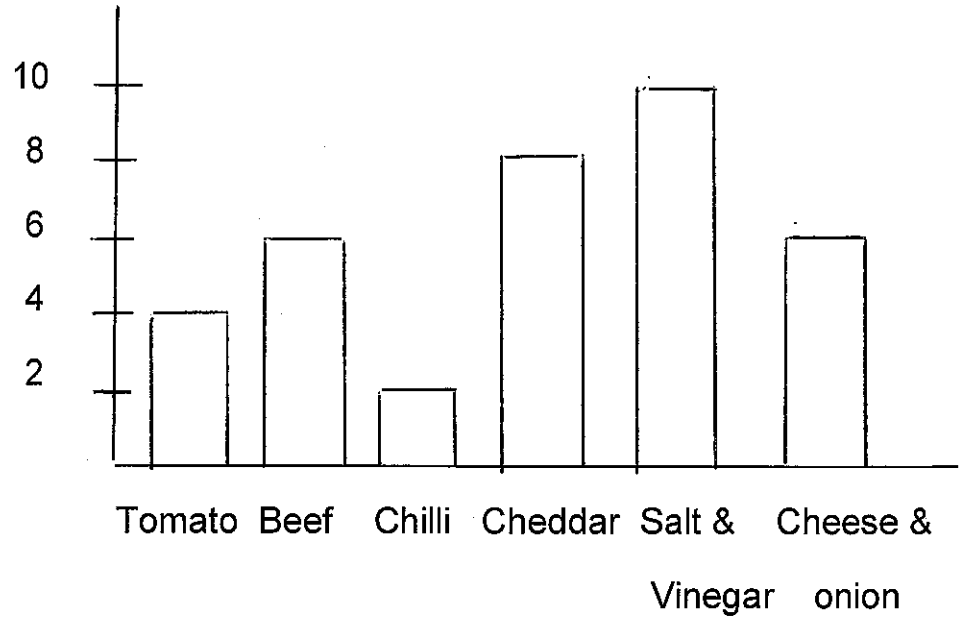
b. Which two subjects are the least popular in Grade 5?

_____ (2)

QUESTION 2

The graph on the following page shows the results of a survey done amongst the Grade 6

learners. It shows the crisps' flavours they enjoy the most.



a. How many crisps' flavours were used in this survey?

_____

b. How many learners chose cheddar as their favourite flavour?

_____

c. Which flavour was the most popular?

_____

d. Was the number of learners who preferred salt and vinegar more than, or less than, half of the total number in the group?

_____

e. What is the difference between the most popular and the least popular flavours (totals)?

_____

(5)

TOTAL : 75

TOM NEWBY SCHOOL EXAMINATION

Subject	MATHEMATICS	Examiner	MRS. R. VAN SCHALKWYK
Date	11 NOVEMBER 2016	Total marks	75
Session	1	Duration	2 HOURS
Grade	4	Moderator	MRS. M FOURIE
Special instructions/ Equipment	INSTRUCTIONS:		

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NAME AND SURNAME: Memo GRADE 4 ✓

INSTRUCTIONS:

1. Read each question twice carefully.
2. Write all numbers neatly and clearly.
3. Show ALL calculations.
4. Check your work.
5. GOOD LUCK!

CONTROLLED HOD

SECTION A WHOLE NUMBERS [33m]

QUESTION 1

Calculate and fill in the answers.

a. The next even number after 2 599 is 2 600

b. Round 7 965 off to the nearest 100. 8 000

c. Round 8 646 off to the nearest 1 000. 9 000

d. Complete the number sentence below.

(4 x 25) + 200 = (3 x 20) + 240

e. Expand the number 6 915:

(6 x 1 000) + (9 x 100) + (1 x 10) + (5 x 1)

f. Double the number 5 472 — 10 944

g. Halve the number 6 530 — 3 265

h. Write as a number: ten thousand eight hundred and twelve. — 10 812

i. Give the total of the number values of the underlined digits in

12 987. — 10 080

j. Make the biggest odd number using all the digits below:

0 3 6 1 — 6 301

k. What are the factors of 8? — 1, 2, 4, 8

l. What is the product of 12 and 100? — 1 200

(12)

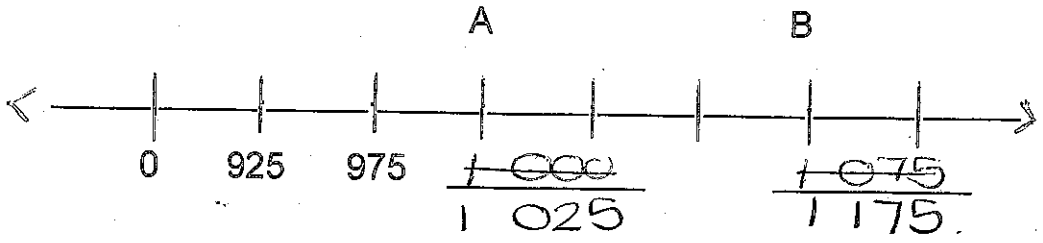
1m each

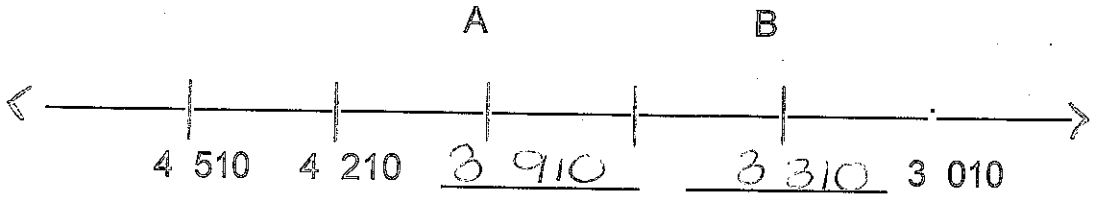
QUESTION 2

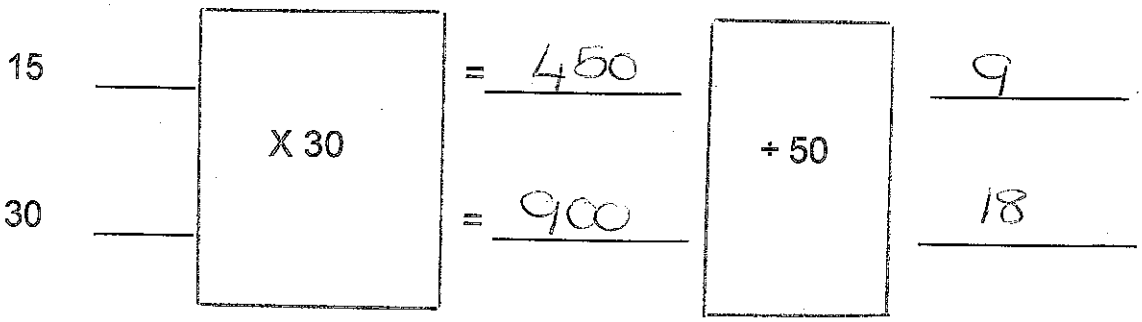
Fill in the missing numbers by completing the number patterns, number lines and spider diagram.

3 650 , 3 850 , 4 050 , 4 250 , 4 450

8 520 , 8 020 , 7 520 , 7 020 , 6 520







(6)
½ m each answer.

QUESTION 3

Check if the following calculations are correct. Remember you use the opposite calculation.

a. ACTUAL CALCULATION

$$\begin{array}{r} 4\ 678 \\ +\ 3\ 572 \\ \hline 8\ 250 \end{array}$$

CHECKING

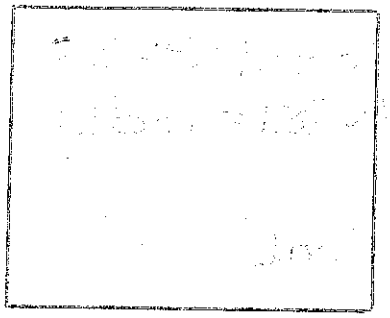
$$\begin{array}{r} 7\ 11\ 14 \\ 8\ 2\ 5\ 0 \\ -\ 3\ 5\ 7\ 2 \\ \hline 4\ 6\ 7\ 8 \end{array}$$

1m.

or

$$\begin{array}{r} 7\ 11\ 14 \\ 8\ 2\ 5\ 0 \\ -\ 4\ 6\ 7\ 8 \\ \hline 3\ 5\ 7\ 2 \end{array}$$

b. $5\overline{)126}$ = 25 r 1



(2)

QUESTION 4

Calculate the answers. Show all the steps of the method you use and the answers clearly.

8 756 + 4 914 = a

8 756
+ 4 914
12 670

1 method
1 answer

(2)

6 495 - 2 639 = b

6 495
- 2 639
3 856

1 method
1 answer

(2)

59 x 16 = c

59 59
x 16 x 16
54 354
800 + 590
90 944
500
944

(3)

496 ÷ 9 = d

55 r 1
9|496
45
49

(3)

(10)

QUESTION 5

Problem Solving. Remember to give an open number sentence and calculation.

b. There was 750 l of water in the rain tank. If we used 320 l on Monday and another 170 l on Tuesday, how much water is left?

750 ℓ − (320 + 170 ℓ) = ℓ ✓

~~7~~ 6 ~~5~~ 10 320

− 490 + 170

260 ℓ ✓ 490 ℓ ✓

(3)

SECTION B TIME AND FRACTIONS [14m]

QUESTION 1

Fill in >, < or =.

2 ½ hrs = 150 min 16 days > 2 weeks

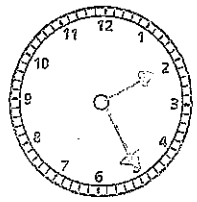
¼ day < 8 hrs 2 years = 24 month (2)

½ each.

QUESTION 2

Read and write the time shown on the clocks in digital and analogue time.

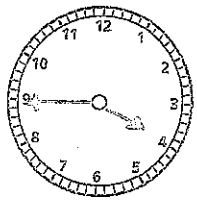
a.



(p.m.)

Twenty - five past two

b.



(a.m.)

Quarter to four

(4)

QUESTION 3

Calculate the following answers:

a. The nurse works from 6 a.m. to 6 p.m. from Tuesday to Friday. How many hours does she work per week?

Calculation:

6 - 6 = 12 hrs ✓1

12 x 4 = 48 ✓1

Answer: 48 hrs

b. Grandma was born in 1938. How old will Grandma be this year?

Calculation:

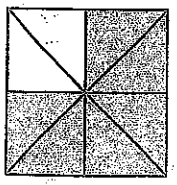
2006 - 1938 = ✓1

78

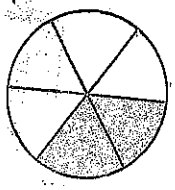
Answer: 78 yrs ✓1 (2)

QUESTION 4

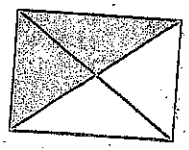
a. What fraction of each diagram is shaded in?



$\frac{6}{8}$ ✓



$\frac{2}{6}$ ✓



$\frac{2}{4}$ ✓

(1 ½)

b. Use the diagrams above to guide you and give an equivalent fraction for:

$\frac{3}{4} = \frac{6}{8}$ ✓ $\frac{1}{3} = \frac{2}{6}$ ✓ $\frac{1}{2} = \frac{2}{4}$ ✓

(1 ½)

c. Calculate the following fractions.

$\frac{4}{7} + \frac{2}{7} = \frac{6}{7}$ ✓ $\frac{8}{10} - \frac{3}{10} = \frac{5}{10}$ ✓

(1)

d. Dad takes a quarter of an hour to fix the leaking taps in our house. How many minutes is that? Please complete the open number sentence and calculation.

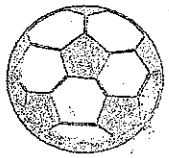
$\frac{1}{4}$ of 60 ✓ = 15 ✓ min.

(2)

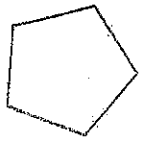
SECTION C GEOMETRY [10m]

QUESTION 1

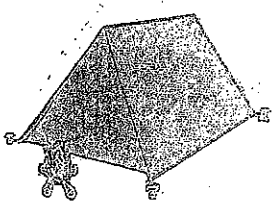
Name the shapes below:



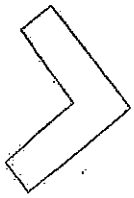
Sphere



pentagon



triangular prism



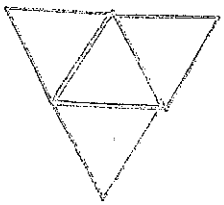
hexagon

1 each. (4)

QUESTION 2

If you cut out the net below, what shape would it make?

Underline the correct answers in each bracket.



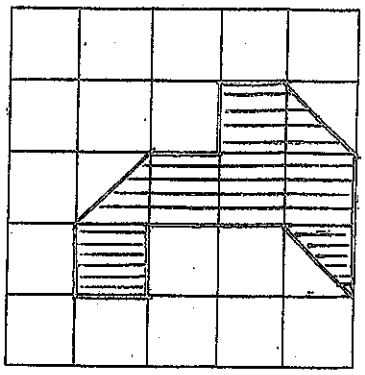
This is a (2-D , 3-D ,) shape called a (rectangular prism, triangular pyramid, square pyramid, triangular prism) which has (3, 4, 5) faces and (3, 4, 5) vertices.

½ each (2)

QUESTION 3

What is the perimeter and area of the shape drawn below?

Each block is = 1 cm.



Perimeter = 14.5 cm

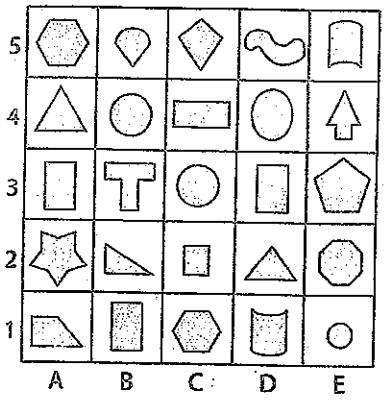
Area = 6½ square units. (2)

1 each.

QUESTION 4

Look at the grid below and give the position of each of the following:

a. the kite C5 b. the star A2 c. the pentagon E3 d. the trapezium A1



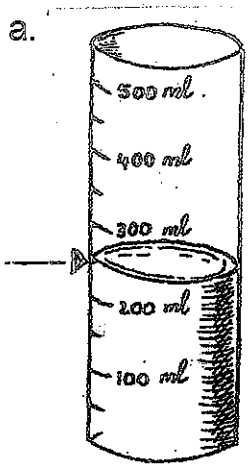
½ each.
(2)

SECTION D DECIMAL FRACTIONS [11m]

QUESTION 1

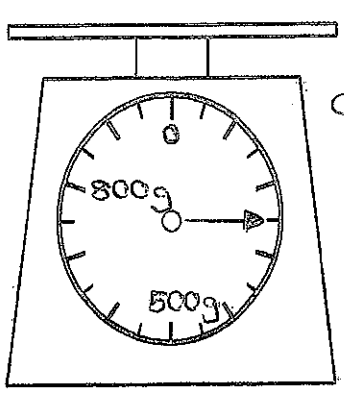
Give the readings indicated by the arrows on each object and convert the amounts.

a.



250 ml
0,250 l
¼ l

b.



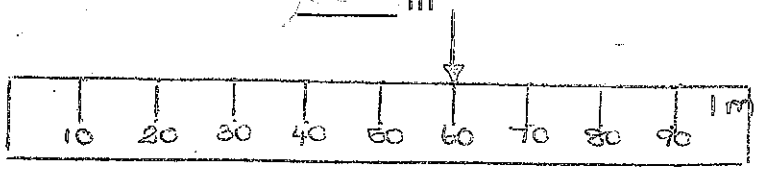
250 g
0,250 kg
¼ kg.

c. 36 mm ✓

35 cm ✓

d. 6 cm ✓

0,6 m ✓



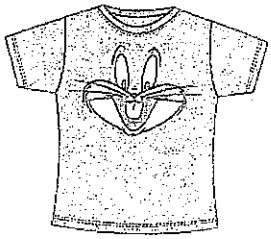
(8)

1 each.

QUESTION 2

Study the pictures below and complete the questions.

Dress @ R365,95 T-shirts 2 pack @ R90 sandals @ R145,50



a. If your mom bought two dresses and a pair of sandals, what would she pay? Show your calculation. (2)

(2 x R365,95) + R145,80 = R

R365,95 R145,80

+ 365,95 + R731,90

R731,90 R877,70 ✓

b. Would it be cheaper to buy a 2 pack of t-shirts @ R90 or two single t-shirts at R47 each? R47 x 2 = R94 (1)

So a 2 pack cost less.

SECTION E DATA HANDLING [7m]

QUESTION 1

The table below compares the Grade 4 and Grade 5 learners' favourite subjects.

Subjects	Grade 4	Grade 5
Social Sciences	4	6
Languages	6	10
Mathematics	15	12
Natural Sciences	5	2

a. How many learners from each Grade took part in this survey?

Grade 4 = 30 Grade 5 = 30

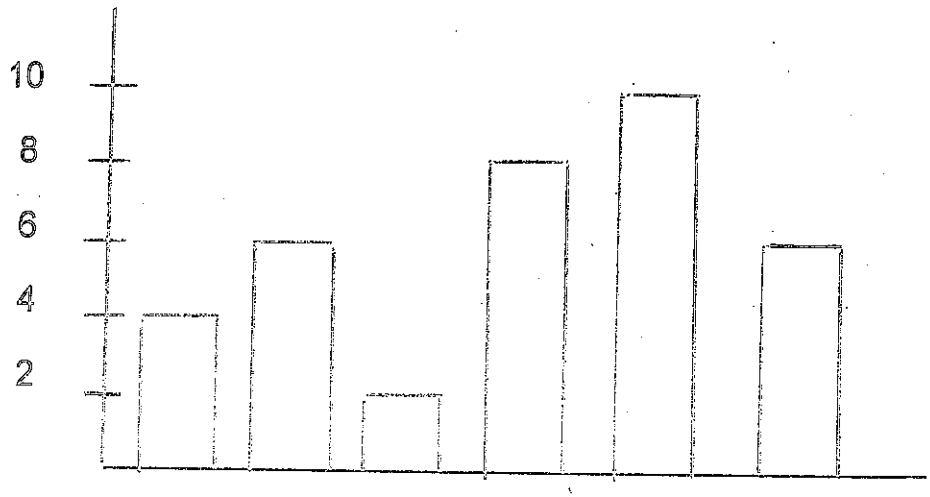
b. Which two subjects are the least popular in Grade 5?

Natural Sciences Social Sciences (2)

QUESTION 2

The graph on the following page shows the results of a survey done amongst the Grade 6

learners. It shows the crisps' flavours they enjoy the most.



a. How many crisps' flavours were used in this survey?

6

b. How many learners chose cheddar as their favourite flavour?

8

c. Which flavour was the most popular?

Salt + vinegar

d. Was the number of learners who preferred salt and vinegar more than, or less than, half of the total number in the group?

less than

e. What is the difference between the most popular and the least popular flavours (totals)?

10 - 2 = 8.

(5)

TOTAL : 75

1 each.