basic education

Department:
Basic Education
REPUBLIC OF SOUTH AFRICA

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ANNUAL NATIONAL ASSESSMENT 2015

GRADE 6 MATHEMATICS TEST

MARKS: 75

MARKS	

TIME: $1\frac{1}{2}$ hours

PROVINCE _____

DISTRICT _____

CIRCUIT _____

SCHOOL _____

EMIS NUMBER (9 digits)

CLASS (e.g. 6A) _____

SURNAME _____

NAME_____

GENDER (✓)

BOY	

GIRL	

DATE OF BIRTH

C	C	Y	Y	M	M	D	D

This test consists of 13 pages, excluding the cover page.

Instructions to the learner:

1. Read all the instructions carefully.
2. Question 1 consists of 10 multiple-choice questions. Circle the letter of the correct answer.
3. Answer questions 2 to 28 in the spaces or frames provided.
4. All working must be shown on the question paper and must not be done on rough paper.
5. The test is out of 75 marks.
6. The test duration is 90 minutes.
7. The teacher will lead you through the practice question before you start the test.
8. You may not use a calculator.

Practice question

Circle the letter of the correct answer.

8 x 6 = ____

A 48

B 84

C 72

D 60

You have answered the question correctly if you circled A.

NOTE:

- You will answer more questions like the one you have just completed.
- Do your best to answer each question even if you are not sure of the answer.
- Write down the answer that you think is the best and move to the next question.
- When you have answered all the questions on a page, turn over to the next page.
- Look only at your own work.

The test starts on the next page.

1. Circle the letter of the correct answer.

1.1 Which one of the following numbers is bigger than 765 000 000?

A 756 999 999
B 764 000 000
C 765 000 000
D 800 000 000

(1)

1.2 What is the median of the following masses?

39 kg 40 kg 42 kg 45 kg 46 kg 50 kg 60 kg

A 46 kg
B 60 kg
C 45 kg
D 39 kg

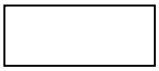
(1)

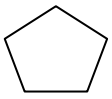
1.3 Which one of the following numbers has a factor of 9?

A 81
B 10
C 79
D 98

(1)

1.4 Which one of the following 2-D shapes has only 2 lines of symmetry?

A 

B 

C 

D 

(1)

1.5 Which one of the following numbers is not a multiple of 15?

A 45
B 60
C 75
D 55

(1)

1.6 The freezing point of pure water is approximately equal to…

A 100 °C
B 0 °C
C 50 °C
D 37 °C

(1)

1.7 What is the value of 17 x 0 + 41?

A 41
B 17
C 58
D 0

(1)

1.8 Write the following number in its simplest form:
7 000 000 + 40 000 + 500 000 + 600 + 9 000 + 8 + 20

A 7 456 982
B 7 549 628
C 74 569 820
D 7 459 628

(1)

1.9 Convert 35 780 millilitres to litres.

A 3,578 litres
B 357,8 litres
C 3 578 litres
D 35,78 litres

(1)

1.10 What is the value of the underlined digit in 75,<u>6</u>2?

A 6 tens
B 6 tenths
C 6 hundredths
D 6 units (1)

[10]

2. Round 347 659 off to the nearest 100 000.

_____ [1]

3. Complete: If 387 x 24 = 9 288, then 9 288 ÷ 24 = _____ [1]

4. Calculate: 36 – 24 ÷ 6 = _____ [1]

5. Complete: (125 + 59) + 78 = 125 + (78 + _____) [1]

6. Fill in the missing number in the given number sequence.
95,5 ; 95,7 ; 95,9 ; _____ ; 96,3 [1]

7. Write down the given numbers from the biggest to the smallest.

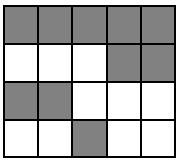
123,03	123,3	123,33

[1]

_____ _____ _____

8. Which prime number is between 23 and 31? _____ [1]

9. Half of the 20 blocks in the diagram below have been shaded.



Write down the shaded part of the diagram as a:

9.1	Common fraction		(1)
9.2	Decimal fraction		(1)
9.3	Percentage		(1)

[3]

10. Calculate the answers for questions 10.1 to 10.7.

10.1 643 189 + 12 387 + 4 230

(2)

10.2 976 453 – 68 397

(2)

10.3 6 907 x 28

(3)

10.4 7,4 + 0,82

(2)

10.5 $7\frac{3}{5} + 4\frac{4}{5}$

(2)

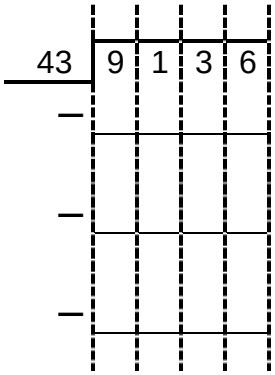
10.6 $4\frac{4}{11} - 2\frac{7}{11}$

(2)

10.7 $\frac{3}{4}$ of 120

(2)
[15]

11. Calculate 9 136 ÷ 43.



[3]

12. Miss Pongo has a bag with 482 beads. She shares the beads equally amongst the 36 learners in her class.

12.1 How many beads does each learner get?

(3)

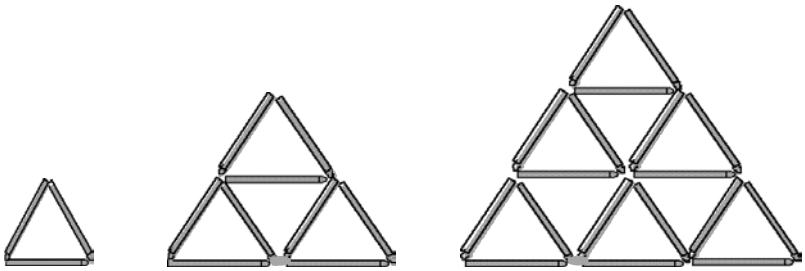
12.2 How many beads will be left over?

(1)
[4]

13. Thabo works for 7 days and Sam works for 5 days at the same rate per day. Together they are paid R1 440. How much money should Thabo get if the money is shared according to the number of days that each worked?

[3]

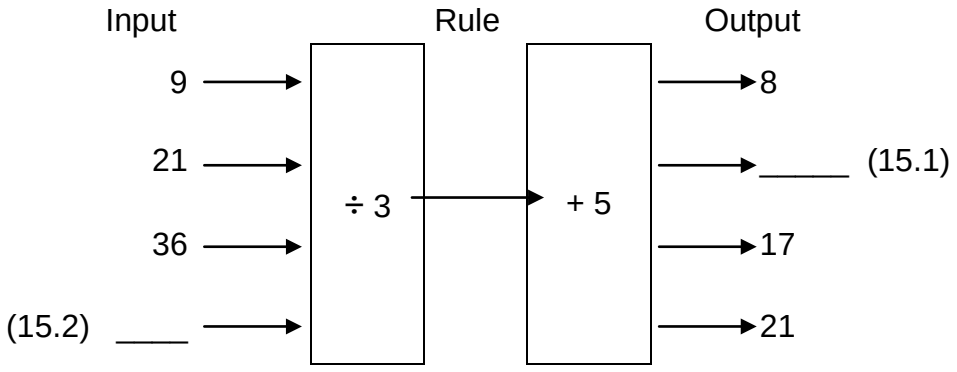
14. How many small triangles will there be in the next diagram if the diagram pattern is continued?



_____

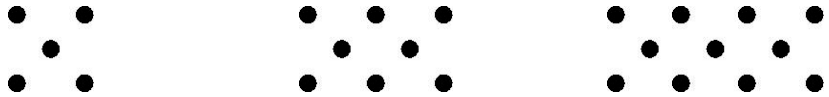
[1]

15. Complete the flow diagram by filling in the missing numbers for 15.1 and 15.2.



[2]

16. Look at the dot patterns and complete the table if the dot pattern continues.



Pattern 1 Pattern 2 Pattern 3

Pattern number	1	2	3	6	
Number of dots	5	8	11		47

[2]

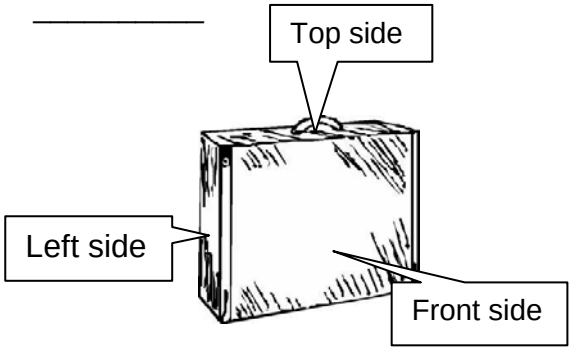
17. Complete the given number sequence:

[1]

729 ; 243 ; 81 ; 27 ; _____ .

18. From which side did Vusi take the photograph shown here?

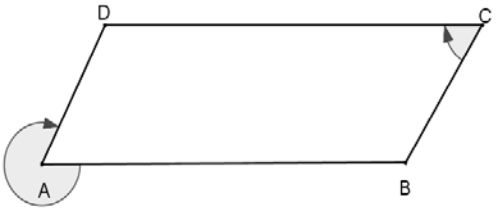
_____



photo

[1]

19. Name the types of angles indicated in the diagram.



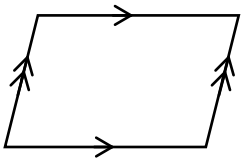
19.1 $\hat{C}$ _____ (1)

19.2 $\hat{A}$ _____ (1)

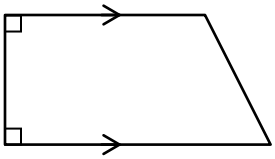
[2]

20. Choose the name of each quadrilateral below from the words in the frame.

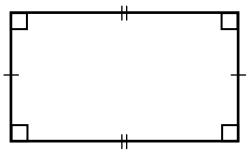
Rectangle	Trapezium	Square	Parallelogram



20.1



20.2



20.3

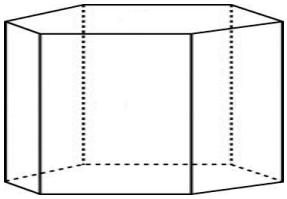
20.1 _____ (1)

20.2 _____ (1)

20.3 _____ (1)

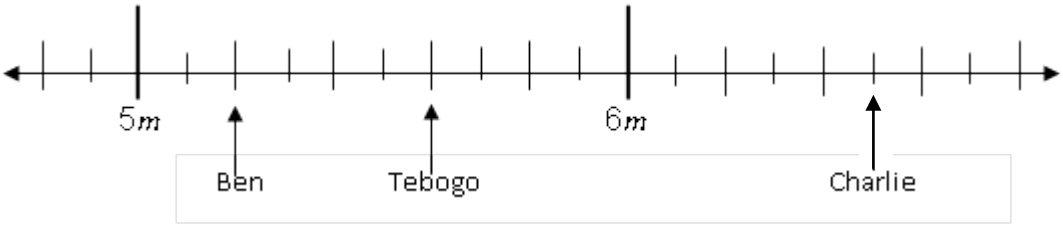
[3]

21. Complete the table involving the 3-D object shown in the sketch.

3-D object	
Name of the 3-D object	Hexagonal prism
Number of vertices	
Number of edges	
Number of faces	

[3]

22. At an athletics meeting a measuring tape was used to measure the distances jumped by 3 boys.

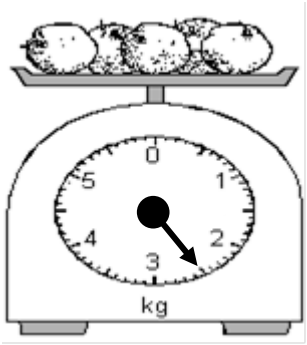


22.1 Who jumped the furthest? _____ (1)

22.2 How far did Ben jump? _____ (1)

[2]

23. The following is a picture of a scale that is used for weighing lemons.



What is the mass of the lemons shown in the picture?

23.1 Mass = _____ kg (1)

23.2 Convert the mass in question 23.1 to grams.

_____ g (1)

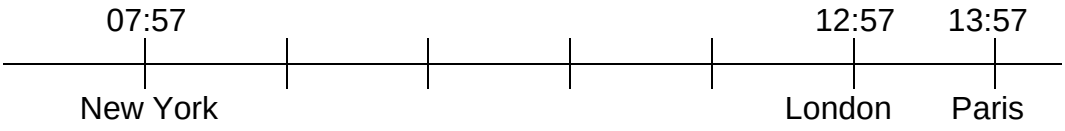
[2]

24. The volume of water in a water tank is 60 litres.

How much water is left after 6,7 litres of water is taken out?

[2]

25. At a particular moment the following times are noted in cities around the world. Use the timeline to answer the questions that follow.



25.1 What is the time difference between London and New York?

_____ (1)

25.2 What time will it be in Paris if it is 13:45 in New York?

_____ (1)

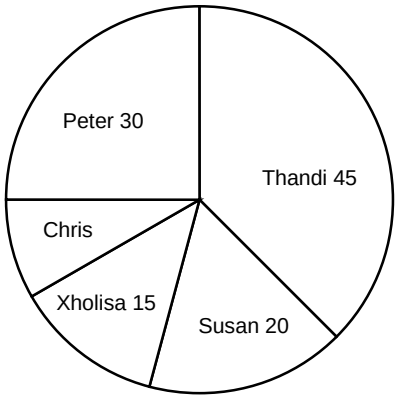
[2]

26. What is the mode of the given set of numbers?

12 15 18 11 18 19 15 18 10 _____

[1]

27. This pie chart indicates how 120 gold stars were awarded to five Grade 6 learners.



27.1 Who received 20 stars? _____ (1)

27.2 Calculate how many stars Chris received.

(2)

27.3 What percentage of the stars did Peter get?

(2)
[5]

28. In a shop some tables have 3 legs and some tables have 4 legs. Altogether there are 23 legs. How many three-legged and how many four-legged tables could there be in the shop?

_____

[1]

TOTAL: 75