



basic education

Department:
Basic Education
REPUBLIC OF SOUTH AFRICA

MARKS

ANNUAL NATIONAL ASSESSMENT 2012 GRADE 6 MATHEMATICS TEST

MARKS: 75

TIME: 1½ hours

PROVINCE _____

REGION _____

DISTRICT _____

SCHOOL NAME _____

NATIONAL EMIS NUMBER (9 digits)

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CLASS (e.g. 6A) _____

SURNAME _____

NAME _____

GENDER (✓)

BOY

GIRL

DATE OF BIRTH

C	C	Y	Y	M	M	D	D
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★ 6 M A T H ★

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

Instructions to learners

1. Read all the instructions carefully.
2. Question 1 consists of 6 multiple-choice questions. Circle the letter of the correct answer.
3. Answer Questions 2 to 29 in the spaces or frames provided.
4. Show all working on the question paper.
5. The test duration is 90 minutes.
6. The teacher will lead you through the practice exercise before you start the test.
7. You may not use a calculator.

Practice exercise

Circle the letter of the correct answer.

$$8 \times 6 =$$

- ☒ A 48
- ☐ B 84
- ☐ C 72
- ☐ D 60

You have answered the question correctly if you have circled A.

NOTE:

- You will answer more questions in the test like the one you have just completed.
- Do your best to answer each question even if you are not sure of the answer.
- Look only at your own work.

The test starts on the next page.

1. Circle the letter of the correct answer.

1.1 Which decimal number is the biggest?

- A 1,01
- B 1,1
- C 0,11
- D 1,001

(1)

1.2 39 569 was rounded off to 40 000.

To which of the following numbers was it rounded off?

- A 5
- B 10
- C 100
- D 1 000

(1)

1.3 Select a number sentence to match the following statement:

Seven less than a certain number m is equal to twelve.

- A $7 - m = 12$
- B $12 - m = 7$
- C $m + 7 = 12$
- D $m - 7 = 12$

(1)

1.4 Calculate: $4 \times (12 - 8) \div (4 + 0) \times 1$

- A 8
- B 16
- C 0
- D 4

(1)

1.5 How much water will a full kitchen kettle hold?

- A 1,7 ml
- B 1,7 l
- C 107 l
- D 1,7 kl

(1)

1.6 With which operation sign must you replace the Δ so that the number sentence $4 \times 3 \Delta 6 \div 2 = 15$ is correct?

- A +
- B -
- C x
- D \div

(1)

2. Write down the next decimal number.

0,79 ; 0,76 ; 0,73 ; 0,7 ; _____

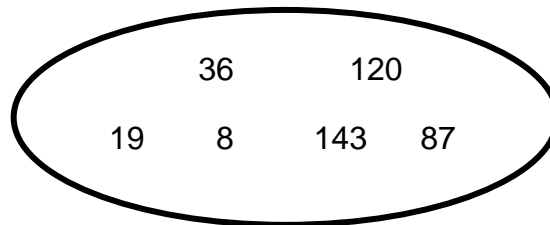
(1)

3. Write the number in digits.

Four million two hundred and eighty three thousand one hundred and sixty-four.

(1)

4. From the given group of numbers, choose ONE number that fits each of the descriptions below.



4.1 A multiple of 11 _____

(1)

4.2 1, 2, 3, 4, 6, 9, 12, 18 are factors of _____

(1)

4.3 A prime number _____

(1)

4.4 A number divisible by 5 _____

(1)

5. What is the value of the underlined digit in the following number?

367 049 215 _____ (1)

6. Round off 29 702 to the nearest 5. _____ (1)

7. Calculate the answers in Questions 7.1 to 7.6.

7.1

$$654 + 235\,583 + 32\,912$$

(2)

7.2

$$394\,067 - 63\,625$$

(2)

7.3

$$6\,960 \div 145$$

(3)

7.4

$$2\,067 \times 189$$

(4)

7.5

$$5 - 3,64$$

(1)

7.6

$$24,37 + 346,83$$

(1)

8. Calculate the answer in Questions 8.1 and 8.2 and write your answer as a mixed number.

8.1

$$8\frac{3}{10} - 4\frac{1}{5}$$

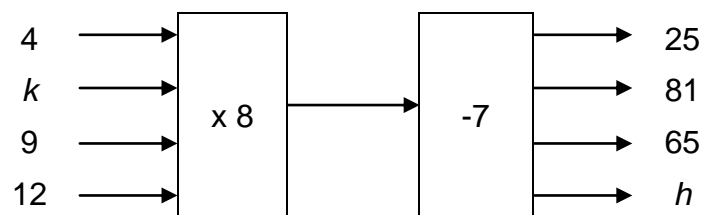
(4)

8.2

$$5\frac{1}{2} + 3\frac{1}{8} + \frac{3}{4}$$

(4)

9. Find the value of h and k in the flow diagram below.



9.1 $h =$ _____ (1)

9.2 $k =$ _____ (1)

10. Write down the next number in the sequence.

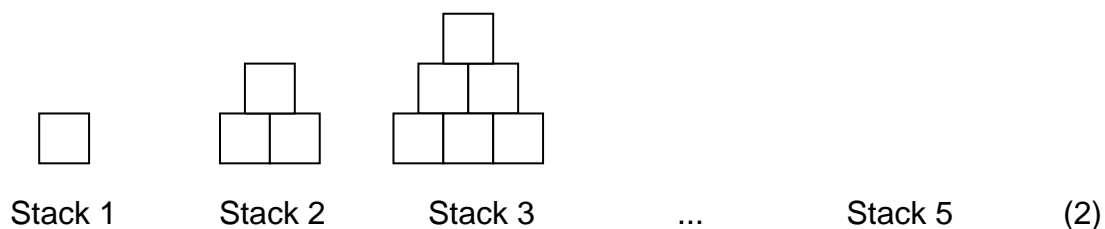
1 ; 1 ; 2 ; 3 ; 5 ; 8 ; _____ (1)

11. Calculate the value of x if $x - 41 = 12$. (1)

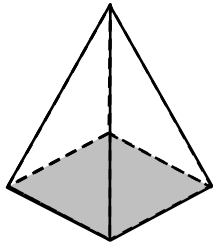
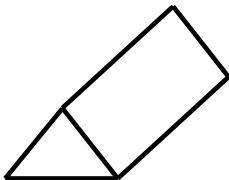
12. A car travels at 100 km per hour. How far will it travel in 45 minutes? (2)

13. Mr Msebenzi buys 480 sweets for R30,00. He repacks the sweets into packets of 24 each. He sells the packets for R2,50 each. How much profit will he make if he sells all the sweets? (3)

14. Ingrid has stacked some blocks according to a certain pattern. Use the same pattern to draw Stack 5.

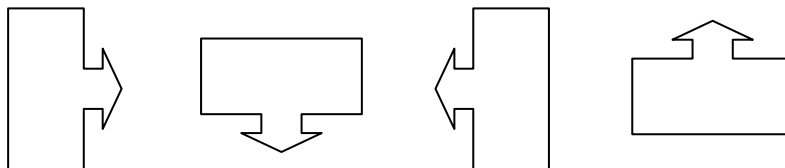


15. Examine the two objects below and complete the table.

		
Name of object	Square-based pyramid	
Number of vertices	5	
Number of edges		9

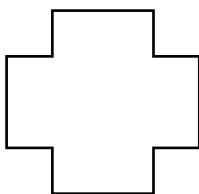
(3)

16. Which kind of transformation is shown here?



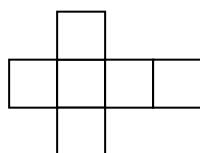
(1)

17. How many lines of symmetry does the diagram below have?

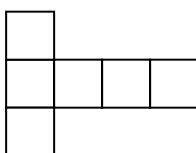


(1)

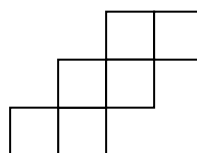
18. Circle the letter of the net that cannot be folded into a cube.



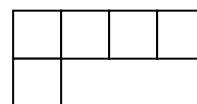
A



B



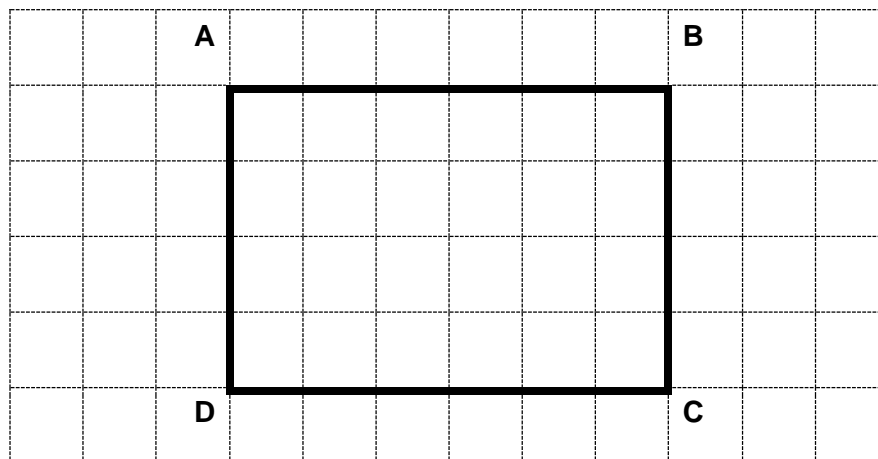
C



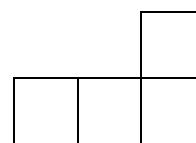
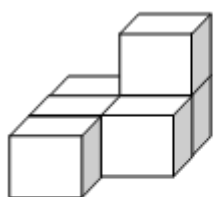
D

(1)

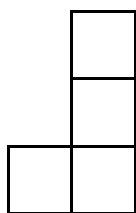
19. On the grid below, each block represents 1 cm by 1 cm. ABCD is a rectangle.



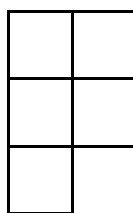
- 19.1 The length of side AB = _____ cm (1)
- 19.2 The length of side AD = _____ cm (1)
- 19.3 How many square centimetres are in ABCD? _____ cm^2 (1)
20. Six cubes are used to build the 3-D figure shown below. The view from the right is given next to it. Circle the letter showing the front view.



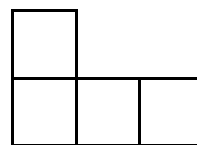
View from the right



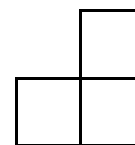
A



B







































C



D

(1)

21. Study the grid below and then answer the questions that follow.

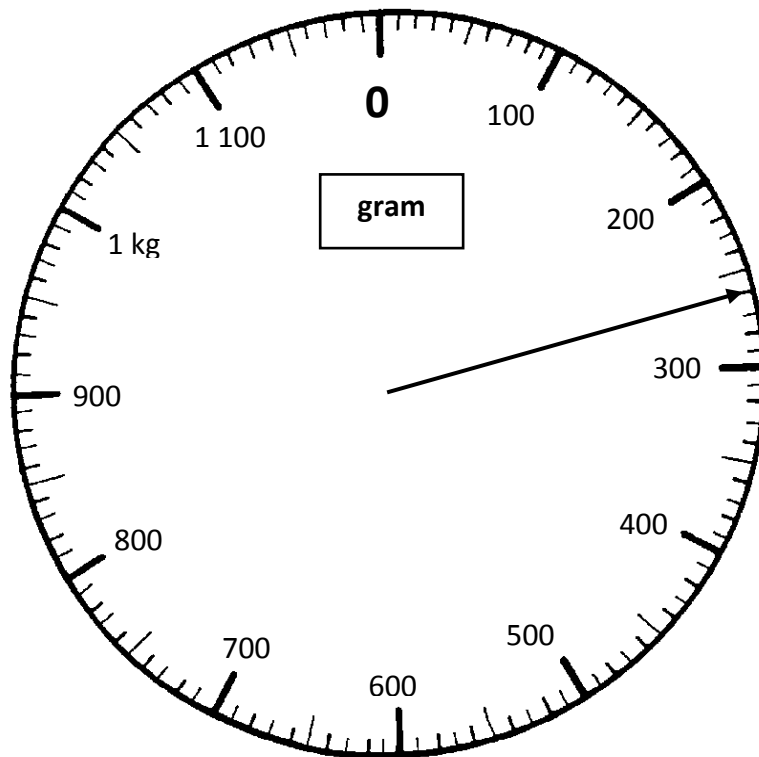
D									
C									
B									
A									
	1	2	3	4	5	6	7	8	9

- 21.1 How many pentagons are there in this grid? _____ (1)
- 21.2 Which shape is in block 8A? _____ (1)
- 21.3 In which block will you find a rectangle? _____ (1)

22. Miriam left Durban at 21:45 and arrived in Johannesburg at 04:30 the next day. How long did her journey take?
- (2)

23. Tamara invited 37 friends to her party. Each friend may drink 2 glasses of cool drink. If each glass holds 200 mℓ, how many 2-litre bottles of cool drink should her mother buy?
- (3)

24. Refer to the scale below to answer the questions.



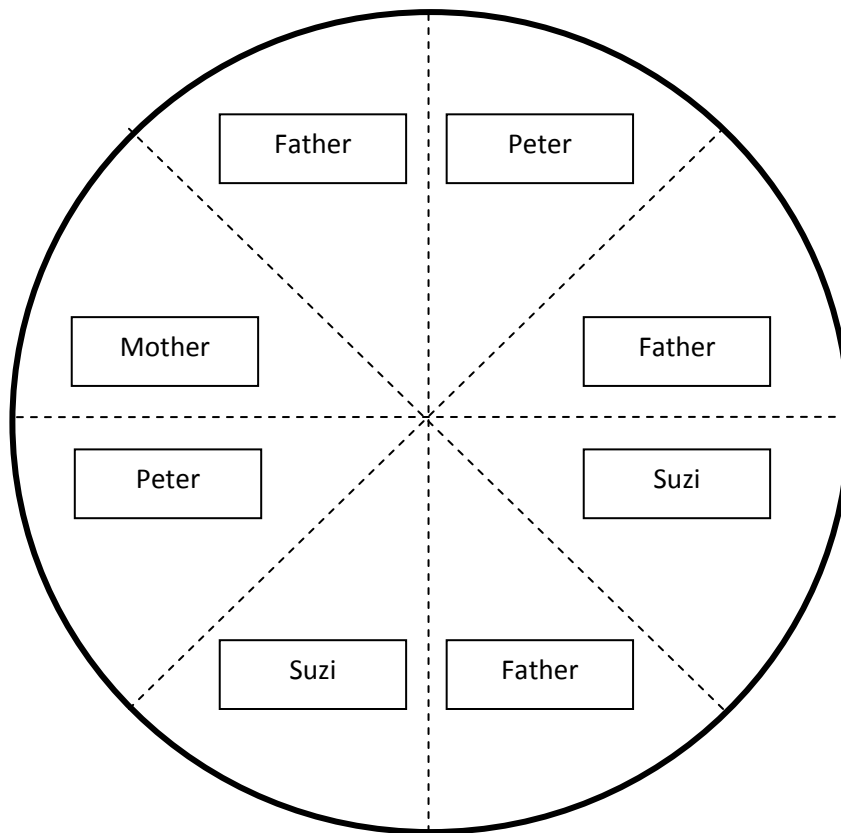
- 24.1 What is the mass indicated on the scale above? _____ (1)
- 24.2 Convert your answer in Question 24.1 to kilograms. _____ kg (1)
25. The tally chart below shows the number of lions and giraffes which learners saw in the zoo.

Animal	Tally marks	Total
Lion		
Giraffe		12

Complete your answers in the table above.

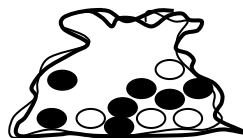
- 25.1 How many lions did the learners see? (1)
- 25.2 Fill in the correct number of tally marks for the number of giraffes seen. (1)

26. Mother bought the family a pizza for R120,00. She divided it amongst the family members as indicated below.



- 26.1 What fraction of the pizza did Father eat? _____ (1)
- 26.2 What percentage of the pizza did Peter eat? _____ (1)
- 26.3 What did Suzi's part of the pizza cost? _____ (1)

27. Study the picture below.



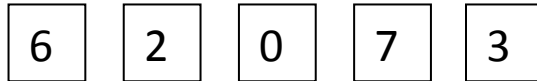
A bag contains black and white marbles. The probability of taking a white marble out of the bag above, without looking in the bag, is _____. (1)

28. Jacob listed the marks for his Mathematics class tests.

Jacob's marks: 20 16 10 3 12 10 11 14 5 19 4

What is Jacob's median mark? _____ (1)

29. Phiti has five numbered cards. How many different two-digit numbers can she make with these five cards?



_____ (2)

TOTAL: 75