basic education

Department:
Basic Education
REPUBLIC OF SOUTH AFRICA

ANNUAL NATIONAL ASSESSMENT

GRADE 6

MATHEMATICS

2012 EXEMPLAR TEST

1. Circle the letter of the correct answer.

    1.1 What is the place value of the underlined digit in 4<u>5</u> 678 921?

         A 10 000 000
         B 1 000 000
         C 100 000
         D 100 000 000   (1)

    1.2 38,93 x 100 =

         A 3 893
         B 3, 893
         C 398,3
         D 0,3893   (1)

    1.3 Round 35 963 off to the nearest 100.

         A 35 000
         B 35 960
         C 35 900
         D 36 000   (1)

    1.4 Which number is represented by (4 x 1 000 000) + (30 x 10 000) +
         (900) + (7 tens) + 5

         A 43 975
         B 430 975
         C 4 300 975
         D 403 975   (1)

    1.5 What is the ratio of the number of black balls to the number of white balls?

         ●●○●○○●●○●○●●

         A 4:8
         B 2:1
         C 1:1
         D 1:2   (1)

    1.6 What is the value of **D**?   21 - **D** = 27 - 21

         A 27
         B 6
         C 21
         D 15   (1)

1.7 Which number is not a multiple of 125?
   A   375
   B   500
   C   775
   D   1000   (1)

2. Complete the following number pattern.

   1,24; 1,23; 1,22; 1,21; 1,20; _____   (1)

3. Fill in the missing number.

   1 x 67 = _____ x 1   (1)

4. 1 , 3 , 5 , 9, 25, 45 , 75 and 225 are factors of 225. Which factor is missing?
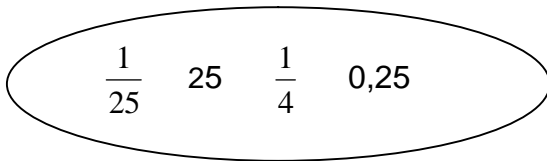
   _____   (1)

5. Look at the 7 numbers and underline the one that is a prime number.

   33; 34; 35; 36; 37; 38; 39   (1)

6. Circle the common fraction and the decimal fraction that are equal to 25%.

   $\dfrac{1}{25}$ 25 $\dfrac{1}{4}$ 0,25   (2)

7. Calculate the answers for 7.1 and 7.2. Show all calculations.
   7.1   7.2
   423 456 + 2 564 876 + 34 078   (2)   6 830 132 – 789 657   (2)

8. Complete.
   5 + 4 x 6 = _____   (1)

9. Insert brackets in the following number sentence to make it true.

   2 + 5 x 9 – 4 = 27   (1)

10. Calculate the answers for 10.1 to 11.4. Show all calculations.

10.1
496 x 387   (3)

10.2
8 591 ÷ 325   (3)

10.3

$\dfrac{25}{36} + \dfrac{3}{4}$ (4)

10.4

$4\dfrac{2}{3} - 3\dfrac{7}{9}$ (4)

11. All the articles in a store are marked down by 25%. What will Thilani pay for a shirt that was marked R200 before the discount?

(2)

12. A train travels at 100km per hour. How far will it travel in $9\dfrac{1}{2}$ hours?

(2)

13. Pedro travels to Pretoria which is 92,3km from his home. After driving for 56,7km, he stopped for fuel. How far was he then from Pretoria?

(2)

14. Look at this pattern and complete the table.
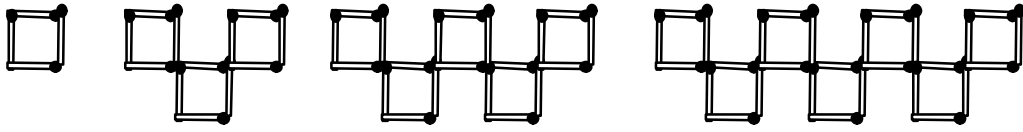
Figure	1	2	3	4	10	25	
Number of squares	1	3	5	7	19		199
Number of matches	4	12	20	28		196	796

(3)

15. Draw the next bead in the string.
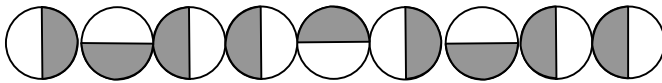
_____ (1)

16. Complete the pattern.

4 ; 9 ; 6 ; 8 ; 8 ; 7 ; 10 ; _____ (1)
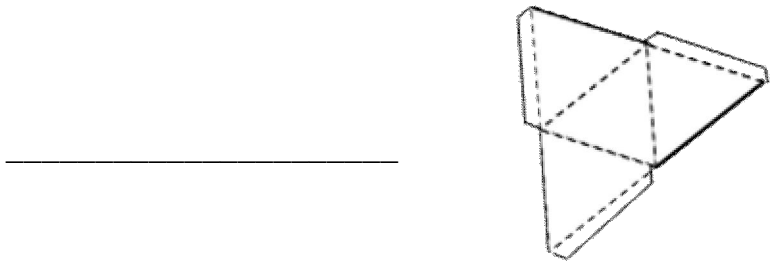
17. Complete the following flow diagram.
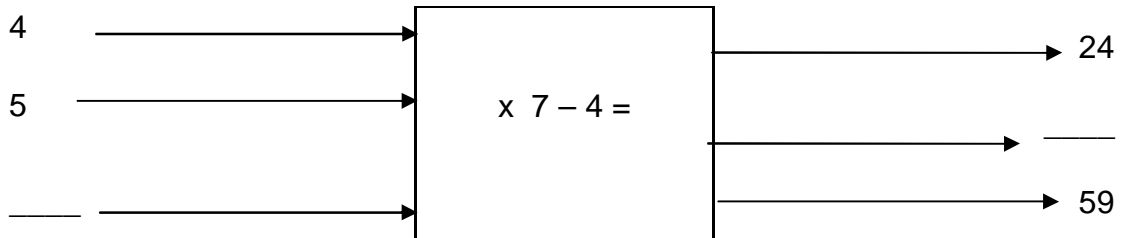
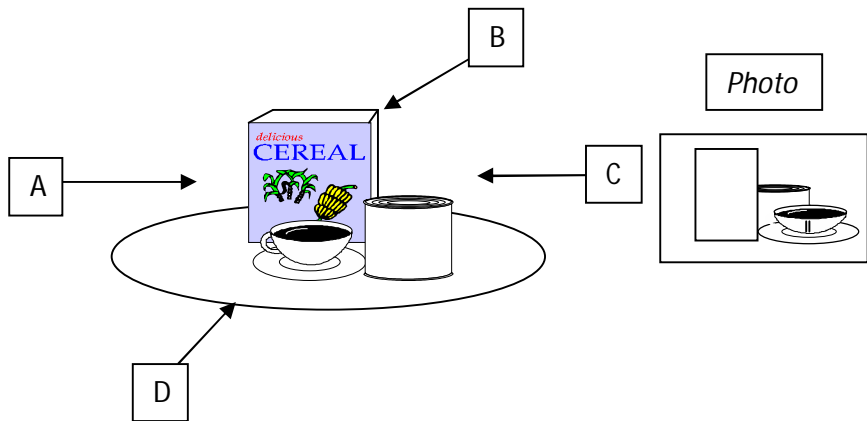(2)

18. Draw all the lines of symmetry in the given figure.

(1)

4
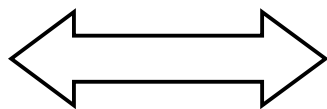
19. Into which 3-D object will the following net fold?

_____

(1)

20. Our photographer Vusi has taken photos of the objects on a table from different (1) positions. Circle the letter that indicates the position from which he took the photo.

21. Use the grid to explain to your friend where your car is parked.

_____
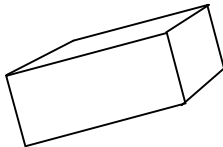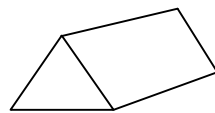
(1)

22. Describe the transformation used to create the border pattern shown below.
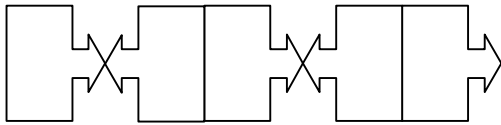
_____ (1)

23. Complete the table.

Name of object	Rectangular prism	
Number of faces.	6	5
Number of vertices.		6
Number of edges.	12	

(3)

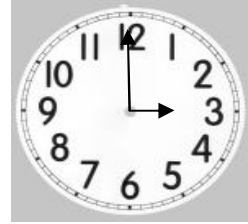24. Name all the 2-D shapes in the picture.

_____   _____
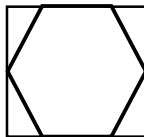
_____ (3)

25. All the sides of a square are equal in length. How do the lengths of sides of a rectangle differ from those of a square?

_____ (1)

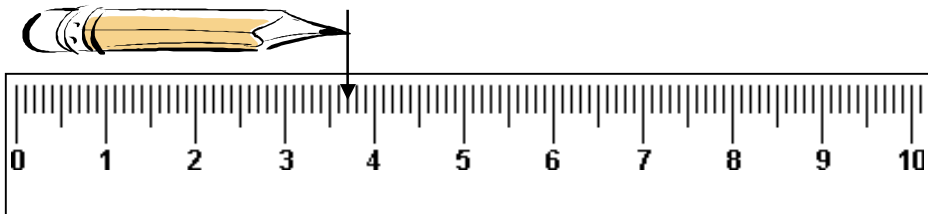26. Name the angle made by the hands of the watch.

_____

(1)

27. A man leaves Lanseria airport at 7.30 p.m. and arrives in Phuket at 15:45 the next day. How long did the flight take?

(3)

28. Write down the length of the pencil in *mm* and in *cm*?
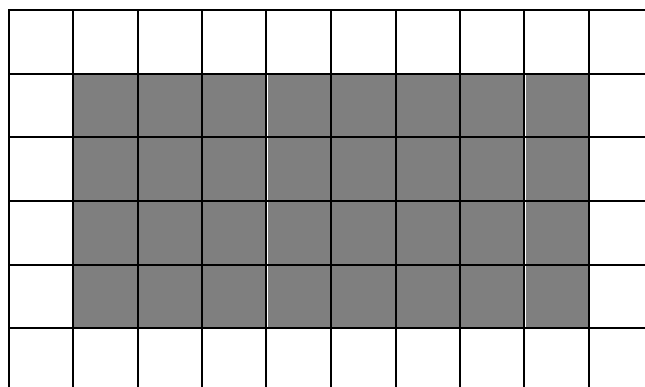

_____ *mm*

_____ *cm*

(2)

29. Each square block has a length of 1 m. The dark area represents a swimming pool seen from above.

29.1 Petrus wants to cover the swimming pool with a net. How big must the net be?

_____ m² (1)

29.2 Petrus wants to put a fence around the swimming pool, one metre from the edge of the pool. What will the length of the fence be?

_____ m (1)

30. Kolishwa invites 50 friends to her party. If each friend can drinks 250ml cool drink, how many 2-litre bottles of cool drink does she need?
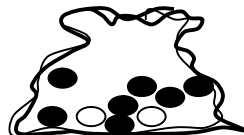
(3)

31. Complete the table.

Favourite colour	Tally marks	Frequency
Red	ℍℍ ℍℍ //	
Pink		7

(2)

32. Underline the word which describes the probability of pulling a black marble out of this bag? (1)

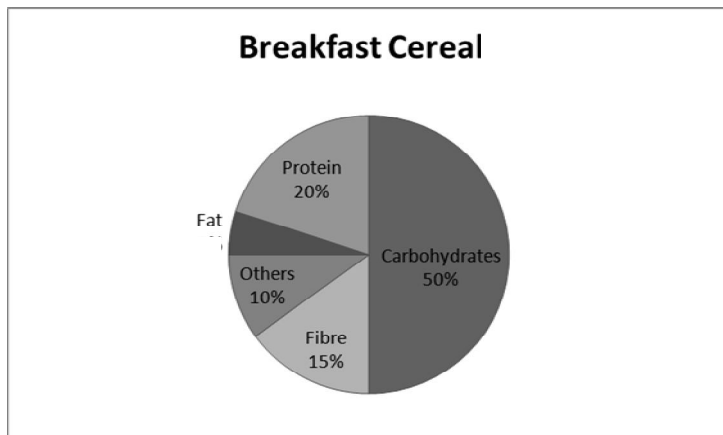Impossible   Unlikely   Even chance   Likely   Certain

33. Here are the first round scores in a golf tournament:
73   79   78   80   79   74   72   76   79   77 and 72.
What is the modal score?
_____ (1)

34. This pie chart shows what a breakfast cereal consists of.

Breakfast Cereal
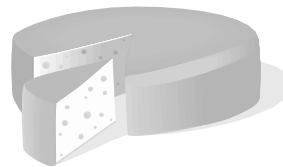

34.1 Which fraction of the circle represents the amount of protein in the cereal?

_____   (1)

34.2 Which percentage of the cereal consists of fat?

_____   (1)

35. What are the minimum number of cuts I have to make to divide a big round cheese into 8 equal parts?

_____   (1)

TOTAL: 75