basic education

Department:
Basic Education
REPUBLIC OF SOUTH AFRICA

ANNUAL NATIONAL ASSESSMENT

GRADE 2

MATHEMATICS

SET 2: 2012 EXEMPLAR

GUIDELINES FOR THE USE OF ANA EXEMPLARS

1. General overview

The Annual National Assessment (ANA) is a summative assessment of the knowledge and skills that learners are expected to have developed by the end of each of the Grades 1 to 6 and 9. To support their school-based assessments and also ensure that learners gain the necessary confidence to participate with success in external assessments, panels of educators and subject specialists developed exemplar test questions that teachers can use in their Language and Mathematics lessons. The exemplar test questions were developed from curriculum work that covers Terms 1, 2 and 3 of the school year and a complete ANA model test for each grade has been provided. The exemplars, which include the ANA model test, supplement the school-based assessments that learners must undergo on a continuous basis and do not replace them.

2. The structure of exemplar questions

The exemplars are designed to illustrate different techniques or styles of assessing the same skills and/or knowledge. For instance, some content knowledge or a skill can be assessed through a multiple-choice question (where learners select the best answer from the given options) or a statement (that requires learners to write a short answer or a paragraph) or other types of questions (asking learners to join given words/statements with lines, to complete given sentences or patterns, to show their answers with drawings or sketches, etc.). So, if teachers and learners find a number of exemplar questions that are structured differently but are asking the same thing, they should understand that this is deliberate and learners must respond to all the exemplar questions. Exposure to a wide variety of questioning techniques or styles gives learners the necessary confidence to confront tests.

3. Links with other learning and teaching resource materials

For the necessary integration, some of the exemplar texts and questions have been deliberately linked to the grade-relevant workbooks. The exemplars have also been aligned with the requirements of the National Curriculum Statement Grades R to 12 (NCS), the provisions of the Curriculum and Assessment Policy Statements (CAPS) for the relevant grades and the National Protocol for Assessment. Together these documents, plus any others that a school may provide, make up a rich resource base to help teachers in planning lessons and conducting formal assessment (assessment of learning).

4. How to use the exemplars

While the exemplars for a grade and a subject have been compiled into one comprehensive set, the teacher does not have to give the whole set to the learners to respond to in one sitting. The teacher should select exemplar questions that are relevant to the planned lesson at any given time. Carefully selected individual exemplar test questions, or a manageable group of questions, can be used at different stages of the teaching and learning process as follows:

4.1 At the beginning of a lesson as a diagnostic test to identify learner strengths and weaknesses. The **diagnosis** must lead to prompt **feedback** to learners and the development of **appropriate lessons** that address the identified weaknesses and consolidate the strengths. The diagnostic test could be given as homework to save time for instruction in class.

4.2 During the lesson as short formative tests to assess whether learners are developing the intended knowledge and skills as the lesson progresses and ensure that no learner is left behind.

4.3 At the completion of a lesson or series of lessons as a summative test to assess if the learners have gained adequate understanding and can apply the knowledge and skills acquired in the completed

lesson(s). Feedback to learners must then be given promptly while the teacher decides on whether there are areas of the lesson(s) that need to be revisited to consolidate particular knowledge and skills.

4.4 At all stages to expose learners to different techniques of assessing or questioning, e.g. how to answer multiple-choice (MC) questions, open-ended (OE) or free-response (FR) questions, short-answer questions, etc.

While diagnostic and formative tests may be shorter in terms of the number of questions included, the summative test will include relatively more questions up to a full test depending on the work that has been covered at a particular point in time. The important thing is to ensure that learners eventually get sufficient practice in responding to full tests of the type of the ANA model test.

5. Memoranda or answering guidelines

A typical example of the expected response (memorandum) has been given for each exemplar test question and for the ANA model test. Teachers must bear in mind that the memoranda can in no way be exhaustive. Memoranda can only provide broad principles of expected responses and teachers must interrogate and reward acceptable options and variations of the acceptable response(s) given by learners.

6. Curriculum coverage

It is extremely critical that the curriculum must be covered in full in every class. The exemplars for each grade and subject do not represent the entire curriculum. They merely **sample** important knowledge and skills and only for work that covers terms 1, 2 and 3 of the school year. The pacing of work to be covered according to the school terms is specified in the relevant CAPS documents.

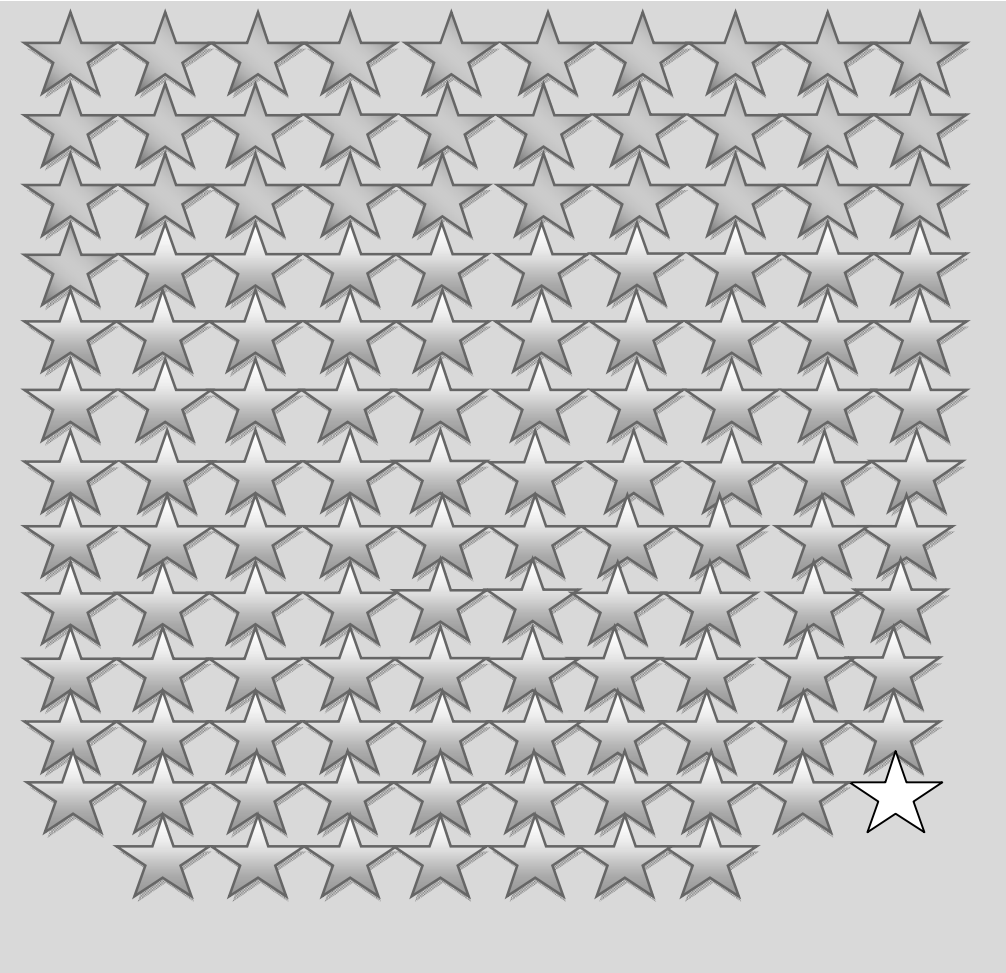
7. Conclusion

The goal of the Department is to improve the levels and quality of learner performance in the critical foundational skills of literacy and numeracy. ANA is one instrument the Department uses to monitor whether learner performance is improving, staying the same or declining. Districts and schools are expected to support teachers and provide necessary resources to improve the effectiveness of teaching and learning in the schools. By using the ANA exemplars as part of their teaching resources, teachers will help learners become familiar with different styles and techniques of assessing. With proper use the exemplars should help learners acquire appropriate knowledge and develop relevant skills to learn effectively and perform better in subsequent ANA tests.

1. **Numbers, operations and relationships**.

(0-150)

Look at the picture and answer the following questions.



a. Count the stars and write down the correct number symbol._____

b. How many groups of four stars are there? _____

c. How many groups of five stars are there? _____

d. How many groups of three stars are there? _____

e. How many groups of ten stars are there? _____

2. Fill in the missing numbers.

a. 131; _____; 133; _____; _____; 136.

b. 120; _____; _____; _____; 140

3. Complete the following number patterns.

a. _____; 70; 72;_____; _____; 78

b. 110; _____; _____; 95; _____; 85

4. Fill in the missing numbers in each of the following sequences.

a. 36; 37; _____; _____; 40

b. 66; 68;_____; _____; 74

c. 12; 16; _____; _____; 28

5. Write the number symbols for the following number names.

a. Seventy-eight _____

b. One hundred and five _____

c. One hundred and fifty _____

6. Write the number names in words.

a. 36 _____

b. 52 _____

c. 100 _____

d. 32 _____

7. Draw arrows to match each number symbol with the correct number name.

a. 98	one hundred and forty-nine
b. 118	eighty
c. 149	one hundred and eighteen
d. 80	eleven
e. 11	ninety-eight

8. Write down the number that comes between each given pair of numbers.

a.	19		21
b.	23		25
c.	59		61

9. Fill in =, > or < between each pair of numbers to make correct statements.

a. 122 _____102

b. 105 _____105

c. 101 _____110

10. Arrange the numbers from the smallest to the greatest.

a. 100 110 95 90 105

_____

b. 51 15 105 115

_____

c. 56 54 50 52 58

_____

11. Arrange the numbers from the greatest to the smallest.

a. 35 47 43 31 39

_____

b. 35 40 25 45 30

_____

c. 42 44 43 45 30

_____

12. Write each of the given two-digit numbers in expanded form.

For example: 37 = 30 + 7 = 3 tens + 7 units.

a. 27 = _____

b. 14 = _____

c. 41 = _____

d. 52 = _____

13. In the number

a. 28, the value of the digit 8 is _____and the value of the digit 2 is _____.

b. 35, the value of the digit 5 is _____ and the value of the digit 3 is _____.

c. 42, the value of the digit 2 is _____ and the value of the digit 4 is _____

14. Calculate by breaking down the bigger number.

Example: 19 + 7= 10 + 9 + 7

= 10 + 10 + 6

= 26

Fill in the missing numbers.

a. 16 + 7= _____+ _____ + 7

= _____ + _____ + _____

= _____

b. 19 + 6 = 10 + _____ + 6

= 10 + _____ + _____

= _____

15. Halve the given number.

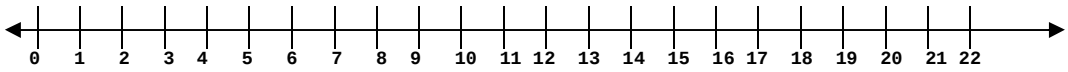
	Number	Number halved
a.	24	
b.	16	
c.	12	

16. Double the given number.

	Number	Number doubled
a.	18	
b.	10	
c.	14	

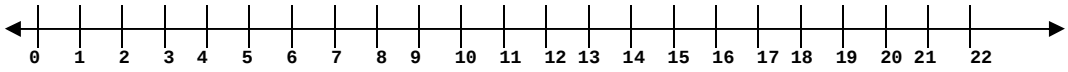
17. Use the number line to

a. add 13 and 8.



b. Then 13 + 8 = _____

subtract 14 from 22.



Then 22 - 14 = _____

18. **Problem solving (word sums)**

Answer the following questions.

a. Lebo had 45 marbles. He lost 20 marbles. How many marbles does he have left?

Number of marbles left =_____

b. Tholang had 16 sweets. She gave 7 to Busi. How many sweets does Tholang have now?

Number of sweets = _____

c. Jabulani picked 23 peaches and Buti picked 25 peaches.

How many more peaches did Buti pick than Jabulani?

Buti picked _____ peaches more.

d. Myakallo, Lerato, Mary and Pam each have 4 sweets. How many sweets do they have altogether?

Total number of sweets= _____

19. Fill in the missing number to complete the repeated addition sum.

a. 27 + 2 + _____ + _____ = 33

b. 31 + _____ + _____ + _____ = 43

c. 16 + 10 + _____ + _____ = _____

d. 19 + 6 + _____ + _____ = _____

20. Complete the flow diagram.

Input	Rule	Output
a. 16 →	+10	→ _____
d. 24 →		→ _____

21. **Grouping and sharing**.

. . . .
. . . .
. . . .

Look at the above array of dots and then complete each sentence.

a. There are 3 rows with _____ dots each.

b. There are _____ dots altogether.

22. Tokiso must put 36 cards into packs of 6 each.

a. How many of the packs can he make?

_____

b. How much will each person receive if R48 is shared equally amongst 8 people?

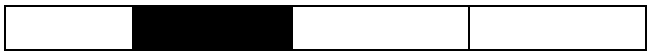
_____

c. In a Grade 3 class of 42 learners there are an equal number of boys and girls. How many girls are there in the class?

_____

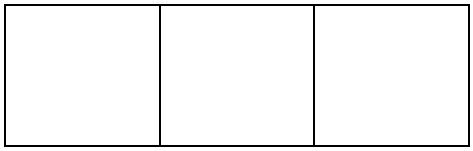
23. Answer the following questions.

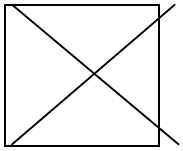
a. The above shape has been divided into _____ equal parts and a _____has been shaded.



b. The above shape has been divided into _____equal parts and a _____ has been shaded.

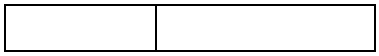
c. Colour the indicated fractional part of each figure.

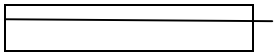


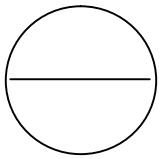


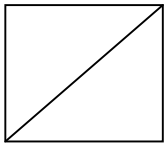
One third One quarter

d. Mark each figure with "✓" or "x" to show whether it has been divided into 2 equal parts or not.









Money.

24. Complete the table.

	Price	Paid with	Change
a.	R1,20	R2	
b.	R10	R20	
c.	R3	R5	

25. Maggie buys a watermelon for R8 and a paw-paw for R9. How much change will she get if she pays with a R20 note?

Change = _____.

26. Calculate.

a. 5c + 10c + 10c = _____

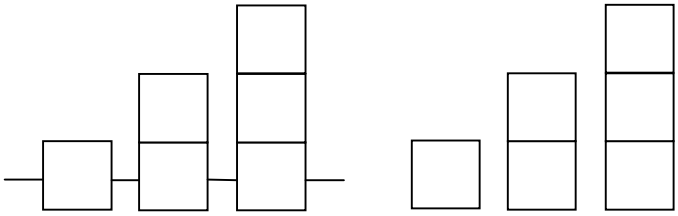
b. 5c + 5c + 10c = _____

c. 20c + 20c + 20c = _____

Patterns.

27. Complete each pattern.

a. 

b. 

c. SssSss_____

28. Write down the next 2 numbers in each of the sequences.

a. 132; 133; 134; _____; _____; _____ ; 138

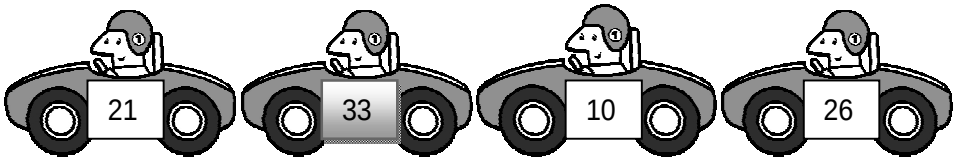
b. 132; 134; 136; _____; _____; _____; 142

c. 146; 144; 142; _____; _____ ; _____; 134

d. 120; 125; 130; _____; _____; _____; 150

e. 114; 117; 120; _____; _____; _____; 132

Position.

29. 

Here are 4 cars parked in a row.

Complete.

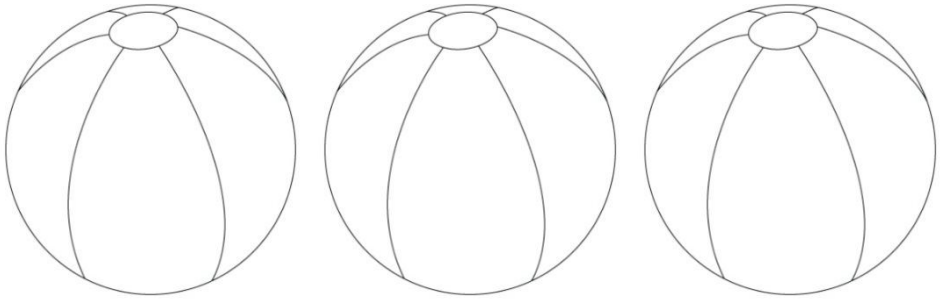
a. Car number _____ is in the front.

b. Car number _____ and ____ are behind car number 33.

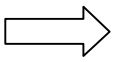
c. Car number _____ is just behind car number 10.

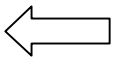
d. Car number _____ is just in front of car number 33.

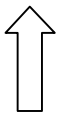
30. Colour the ball on the left yellow and the one on the right blue. Colour the one in the middle purple.

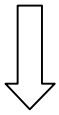


31. Look at each arrow and write down whether it is pointing up, down, to the left or to the right.

a.  _____

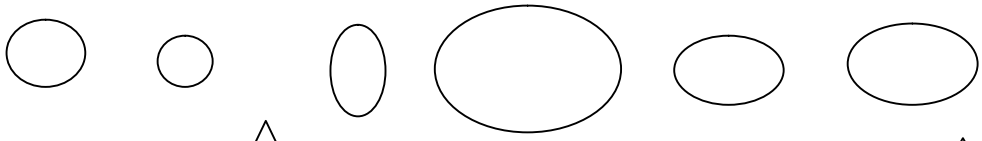
b.  _____

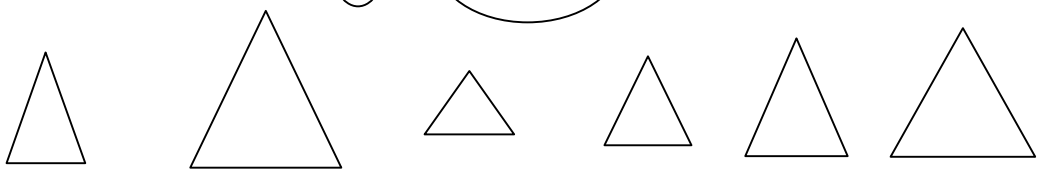
c.  _____

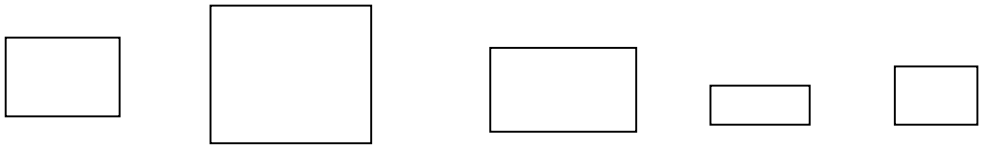
d.  _____

Shapes.

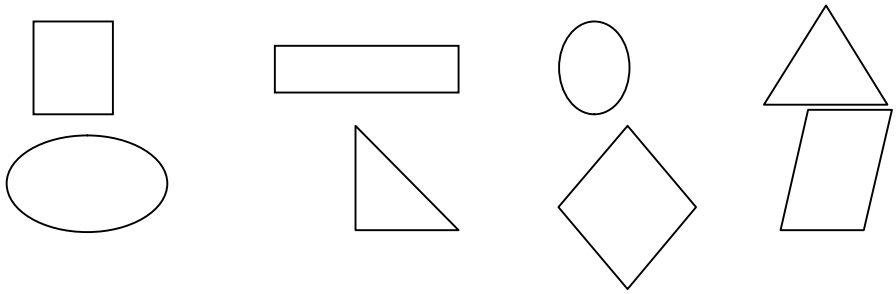
32. In each of the following groups of shapes, colour the smallest shape yellow, the largest shape green and the second largest shape red.

a. 

b. 

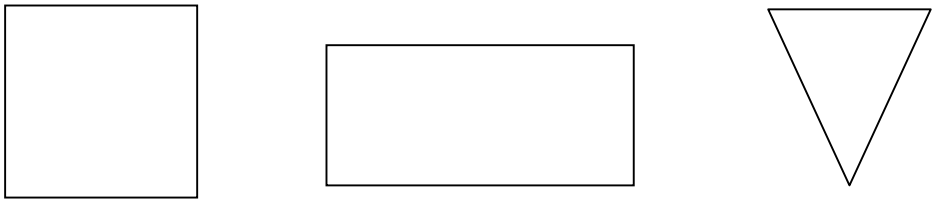
c. 

33. Mark the shapes which have only straight edges with a "✓" and those with curved edges with a "x".

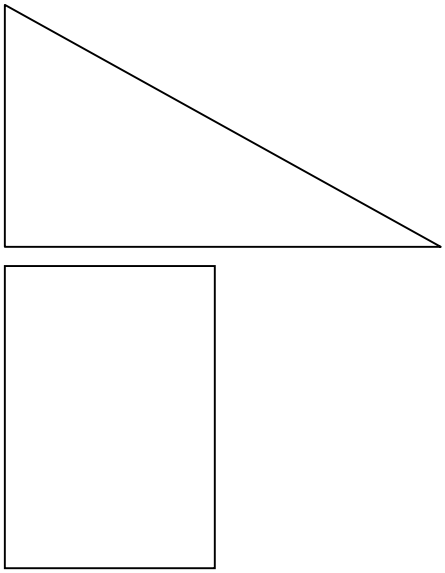


Symmetry.

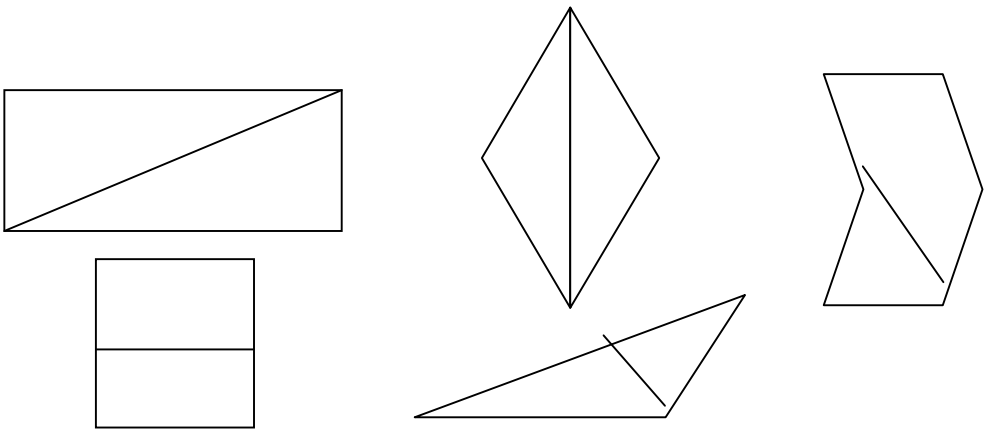
34. Draw a line of symmetry in each of the following 2-D shapes.



35. Draw the other part of the figure to make a symmetrical picture.

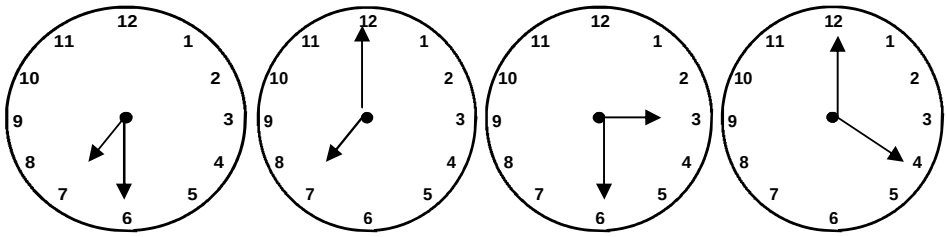


36. Mark the shape with the correct line of symmetry with a "✓".



Time

37. Write down the time shown on each of the following clock faces.



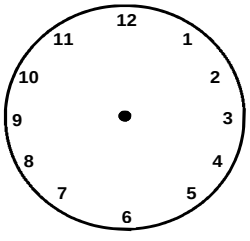
_____ _____ _____ _____

38. a. What will the date be 3 days after the last day of January? _____.

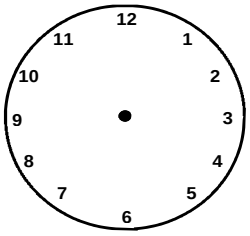
b. If Dumi's birthday was five days before 23 January. On which date was his birthday? _____.

c. How many days is the 1st January after Christmas day? _____.

39. Draw the minute-hand and the hour-hand on each of the following clock faces to show the indicated time.



12 o' clock



half past 7

40. Bongi left for school at 7 o' clock in the morning. She returned home at 3 o' clock in the afternoon. How many hours was she away from home? _____

41. Count the number of hours

a. from 8 o' clock to 12 o' clock. _____.

b. from 1 o' clock to 7 o' clock. _____.

c. from half past 2 to half past 9._____.

d. from 4 o' clock to half past 12. _____.

Length

42. Examine the lengths of the 5 lines below to see how long each one is.

Line A _____

Line B _____

Line C_____

Line D _____

Answer the questions without measuring the lines.

a. Line _____ is the longest line.

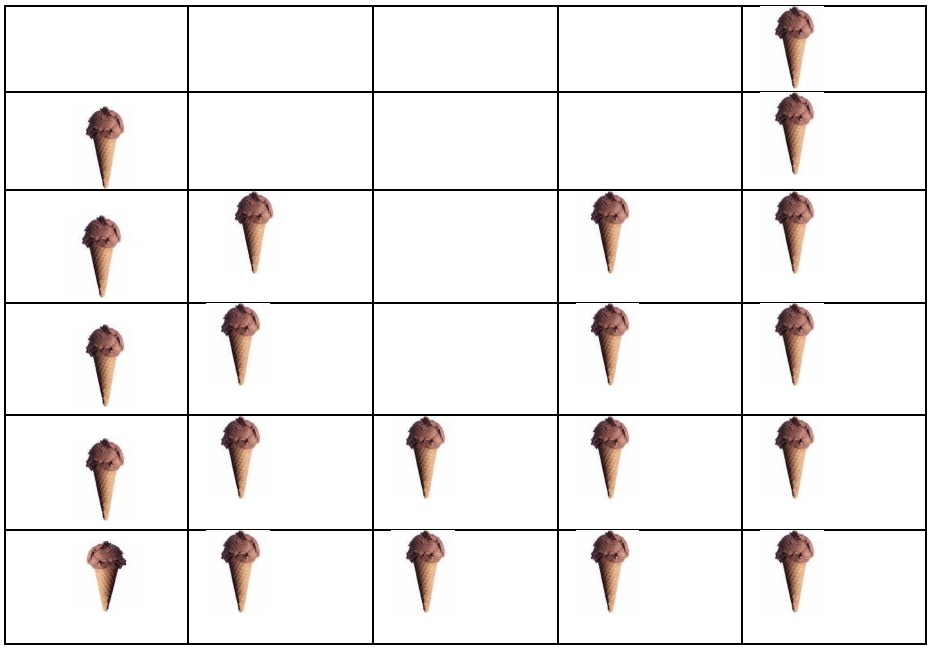
b. Line _____ is the shortest line.

c. Line ____ and line _____ are shorter than line D.

43. **Data handling**

Cone ice creams sold at the schools tuck shop at first break.

Key:  represents 1 ice cream.



Look at the above pictograph and then answer the questions.

a. On which day were the fewest ice creams sold?

_____.

b. The number of ice creams sold on Monday = _____.

c. The number of ice creams sold on Thursday = _____.

d. The total number of ice cream sold = _____.

e. How many more were sold on Friday than on Tuesday?

_____.

44. Count the different shapes and colour each group with a different colour to show how many shapes there are of each kind.