



basic education

Department:
Basic Education
REPUBLIC OF SOUTH AFRICA

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GRADE 5

MATHEMATICS EXEMPLAR QUESTIONS

This booklet consists of 16 pages, excluding the cover page.

GUIDELINES FOR THE USE OF ANA EXEMPLARS QUESTIONS

1. How to use the exemplar questions

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

- 1.1 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 instructional time in class.
- 1.2 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.
- 1.3 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 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.
- 1.4 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, depending on the work that has been covered at a particular point in time. It is important to ensure that learners eventually get sufficient practice in responding to the exemplar questions.

2. Memoranda or marking guidelines

A typical example of the expected responses (marking guidelines) has been given for each exemplar question and for the ANA model test. Teachers must bear in mind that the marking guidelines can in no way be exhaustive. They 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.

3. Curriculum coverage

It is extremely critical that the curriculum must be covered in full in every class. The exemplar questions for each grade and subject do not represent the entire curriculum. They merely **sample** important knowledge and skills and covers work relating to terms 1, 2 and 3 of the school year.

1. Circle the letter of the correct answer.

1.1 $(7 \times 10\,000) + (8 \times 1\,000) + (9 \times 100) + (5 \times 10) + (6 \times 1)$

- A 78 659
- B 78 956
- C 78 569
- D 78 695

(1)

1.2 342 748 can be written as:

- A $40\,000 + 8 + 70 + 400 + 300\,000 + 2\,000$
- B $8 + 700 + 4\,000 + 30\,000 + 2\,000 + 40$
- C $700 + 40\,000 + 40 + 8 + 300\,000 + 2\,000$
- D $300\,000 + 400 + 40 + 20\,000 + 4 + 8 + 7\,000$

(1)

1.3 The simplest form of writing $600\,000 + 400 + 20 + 50\,000 + 3 + 7\,000$ is ...

- A 647 253
- B 657 423
- C 654 325
- D 674 253

(1)

1.4 The place value of the underlined digit in 678 329 is:

- A hundreds
- B thousands
- C ten-thousands
- D hundred-thousands

(1)

1.5 The value of the underlined digit in 633 871 is:

- A 3 HTh
- B 3 TTh
- C 3 Th
- D 300 000

(1)

1.6 Which number is not a multiple of 4?

- A 36
- B 54
- C 96
- D 84

(1)

1.7 1, 2, 4, 8, 16 are factors of:

- A 32
- B 36
- C 24
- D 42

(1)

1.8 6 is a factor of:

- A 28
- B 18
- C 26
- D 16

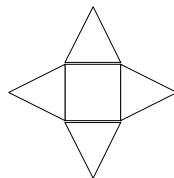
(1)

1.9 A 2-D shape that has 4 right angles and 4 equal sides is called a:

- A rhombus
- B square
- C parallelogram
- D rectangle

(1)

1.10 The following 2-D figure is the net of a:



- A cube
- B rectangular prism
- C square-based pyramid
- D cylinder

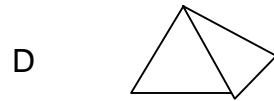
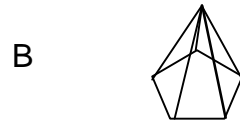
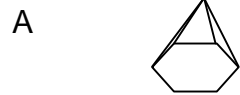
(1)

1.11 Name the shape with 4 right angles and 4 sides equal.

- A Rectangle
- B Square
- C Rhombus
- D Parallelogram

(1)

1.12 Which object below is a pentagonal pyramid?



(1)

1.13 How many faces does a triangular pyramid have?

- A 4
- B 3
- C 5
- D 6

(1)

1.14 4 000 g can be written as:

- A 4 000 kg
- B 400 kg
- C 40 kg
- D 4 kg

(1)

1.15 4 decades are equal to:

A 40 years
B 4 years
C 40 months
D 400 months (1)

1.16 500 g of sugar has the same mass as ... of sugar.

A 500 kg
B 0,5 kg
C $\frac{1}{5}$ kg
D 5 kg (1)

1.17 The next number in the number sequence 8 766; 8 866; 8 966; _____ is:

A 9 166
B 9 066
C 9 266
D 9 366 (1)

1.18 The next number in the sequence 3015; 3020; 3025; _____ ;
... is

A 3030
B 3300
C 3026
D 3050 (1)

1.19 Which number comes next in the number pattern 15; 25; 40; 60;.. ?

A 70
B 75
C 80
D 85 (1)

2. 2.1 71 999 rounded off to the nearest 5 \approx _____ (1)

2.2 71 999 rounded off to the nearest 1 000 \approx _____ (1)

3. Round 123 956 off to the nearest 100. (1)

4. Complete:

4.1 29 624 rounded off to the nearest 10 \approx _____ (1)

4.2 29 624 rounded off to the nearest 1 000 \approx _____ (1)

5. Complete:

5.1 $(90 + 110) \times 10 = (90 \times 10) + (\text{_____})$. (1)

5.2 _____ + 6 815 = 6 815 + 745. (1)

5.3 $(6\ 476 + 4\ 310) + 2\ 697 = 6\ 476 + (\text{_____} + 2\ 697)$ (1)

6. Complete:

$$\begin{aligned} 2(5+3) &= (2 \times \text{_____}) + (2 \times \text{_____}) \\ &= \text{_____} + \text{_____} \\ &= 16 \end{aligned} \quad (3)$$

7. Complete the following number pattern:

96; 82; 68; 54; _____ . (1)

8. Complete the pattern: $5\frac{1}{5}$; 5; $4\frac{4}{5}$; _____ ; _____ . (1)

9. Write down the next 2 numbers in the sequence and state the rule used to find the number.

697 ; 699 ; 701 ; 703 ; _____ ; _____ (2)

10. Replace the * with $>$, $<$ or $=$ to make a correct statement.

$$\frac{1}{3} \times \frac{2}{9} \quad \text{_____} \quad (1)$$

11. Replace * with a number.

$$\frac{5}{7} = \frac{*}{14} \quad (1)$$

12. Write down the missing number in ...

$$\frac{3}{15} = \frac{\quad}{75} \quad (1)$$

13. Calculate:

13.1 $21\,984 + 3\,285 + 14\,319$ (2)

13.2 $289\,741 + 462\,306$ (2)

13.3 $57\,436 + 23\,521$ (2)

13.4 $94\,736 - 65\,829$ (2)

13.5 $46\,436 - 26\,762$ (2)

13.6 745×63 (3)

13.7 237×42 (3)

13.8 876×64 (3)

13.9 $846 \div 6$ (3)

13.10 $756 \div 54$ (2)

13.11 $5\frac{1}{7} + 10\frac{2}{7}$ (2)

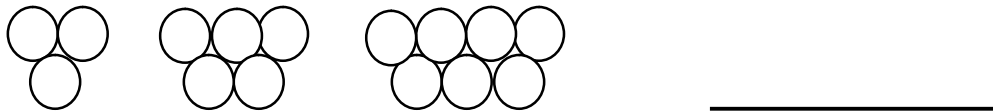
13.12 $3\frac{5}{12} - \frac{7}{12}$ (3)

13.13 $6\frac{5}{8} + 3\frac{7}{8}$ (3)

13.14 $\frac{3}{5}$ of 45 (2)

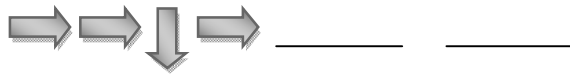
13.15 $9\frac{3}{12} - 1\frac{4}{12}$ (2)

14. Draw the next diagram in the diagram pattern below.



(1)

15. Complete the pattern.



(2)

16. Draw the missing shape in the diagram pattern.



(1)

17. Use the diagrams below to complete the table:



Figure 1

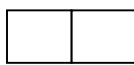


Figure 2

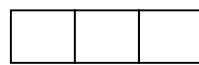


Figure 3

Figure	1	2	3	4	
Number of sides	4	7	10		22

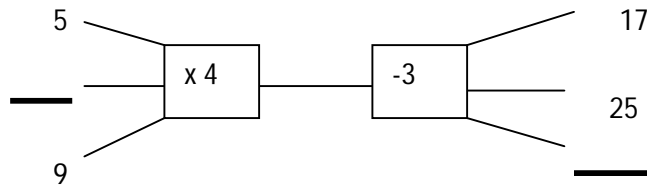
(2)

18. Complete the table below :

Number of spiders	1	2	3	5	
Number of legs	8	16	24		80

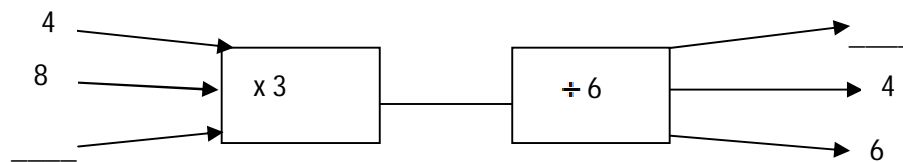
(2)

19. Complete the flow diagram:



(2)

20. Write down the missing numbers in the flow chart.



(2)

21. A car travels 120 km in an hour. How many kilometres will the car travel in 6 hours if it travels at the same constant speed?

(2)

22. A farmer had to pack 43 oranges into a bag. He had 1 763 oranges. How many bags can he fill?

(2)

23. Ann is a flower seller. Today she sold 1 403 flowers and yesterday she sold 2 364 flowers. How many more flowers did she sell yesterday than today?

(2)

24. Write a number sentence for the following word sum.

Twelve times a number plus seven is equal to one hundred and fifteen.

(1)

25. **Write a number sentence for each of the following:**
- 25.1 There are 5 boys and 23 girls in a class. How many learners are there in the class?
- 25.2 Mum buys 3 dozen sweets for her two kids. She decides to give 4 sweets to dad and then shares the rest equally between the two kids. How many sweets does each child get?
- 25.3 There are 20 handbags with 5 lipsticks in each bag. How many lipsticks are there altogether?
- 25.4 The sum of four numbers is 20 500. Three of the numbers are 2 341 578 and 10 690. What is the fourth number? (4)

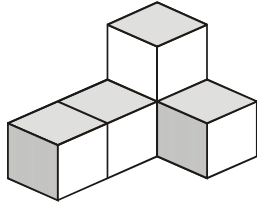
26. Zuko paid R145,95 for a pair of jeans. The original price was R179,95. How much discount did Zuko get? (2)

27. Study the following weather information and then answer the questions that follow.

	Minimum temperature	Maximum temperature
East London	11°C	28°C
Johannesburg	8°C	22°C
Port Elizabeth	15°C	30°C

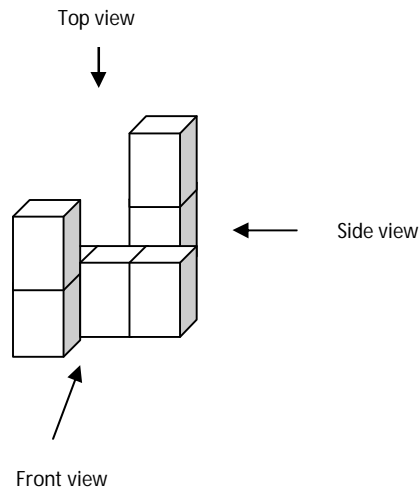
- 27.1 Which city was the coldest? (1)
- 27.2 What was the highest temperature recorded in the 3 cities? (1)
28. Which of the following temperatures would you consider as very cold?
 2°C 12 °C 22 °C (1)

29. Draw the top view of the following 3-D object.



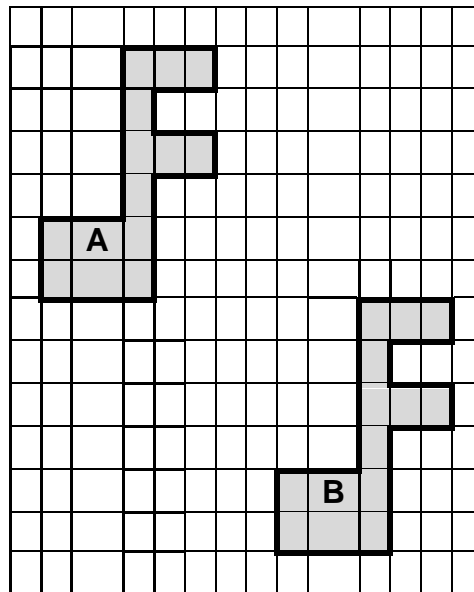
(1)

30. Draw the side view of the following shape.



(1)

31. Has the figure marked A been translated, reflected or rotated to form the figure marked B?



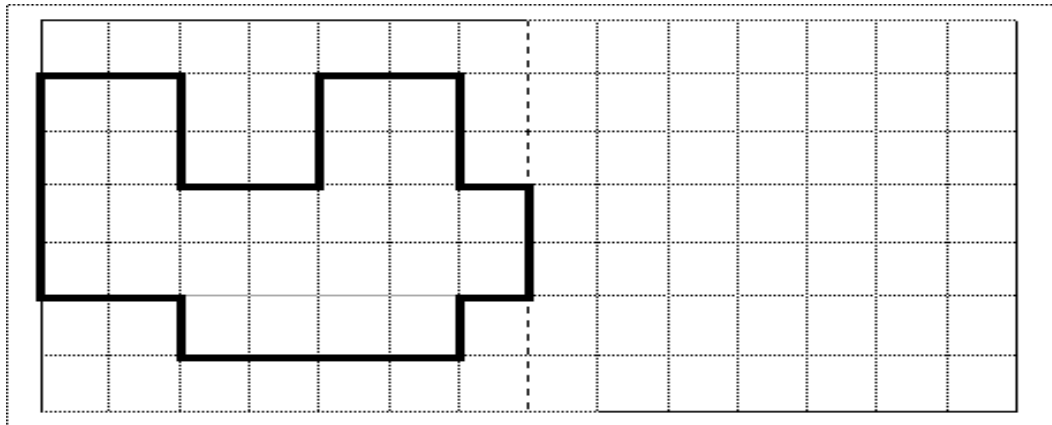
(1)

32. Study the shapes below and name the kind of transformation.



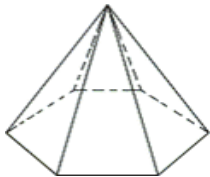
(1)

33. Draw a figure on the right-hand side of the dotted line so that it reflects the figure on the left-hand side of the dotted line.



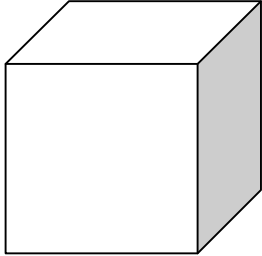
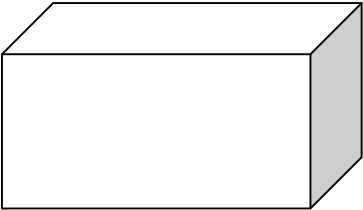
(2)

34. Complete:

3-D Object	Name of the object	Number of faces	Shape(s) of the faces
		7	

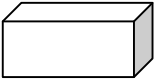
(3)

35.

3-D object	Name of 3-D object	The name(s) of the shape(s) of the faces
		
		

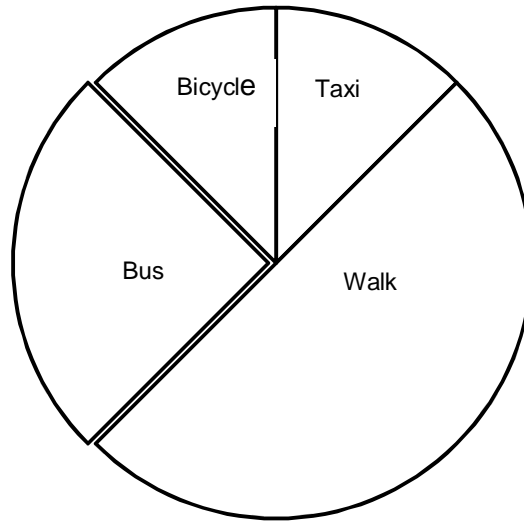
(4)

36.

	Number of squares	Number of rectangles	Name of the 3 -D object
			

(4)

37. Study the following pie chart which shows the mode of transport used by 40 learners to travel to school. Then answer questions that follow.



- 37.1 Which mode of transport is mostly used by the learners? (1)
- 37.2 What fraction of the learners use a bus? (1)
- 37.3 How many learners use a taxi? (2)
- 37.4 How many more learners walk to school than ride on their bicycles? (2)
38. Shereen asked each learner in her class what their favourite ice cream flavour was. She recorded the results in a table. Draw a bar graph to illustrate the data.

Ice cream flavours	Number of learners
Vanilla	12
Chocolate	9
Strawberry	6
Lime	3

(3)

39. Grade 5 learners were interviewed about their favourite TV stations. Their answers were listed as follows: 1 for SABC 1, 2 for SABC 2, 3 for SABC 3 and 4 for e-TV.

1 1 1 2 2 4 3 4 4
4 4 3 3 4 4 1 1 1

39.1 Use the above information to complete the frequency table.

(4)

TV STATION	TALLY MARKS	FREQUENCY
SABC 1		
SABC 2		
SABC 3		
e TV		

39.2 How many learners were interviewed?

39.3 Find the mode of the above data set.

(2)

40. Write the following time as digital time.

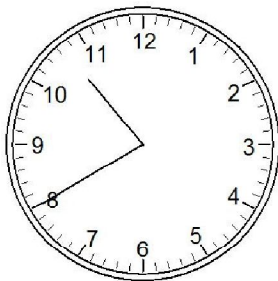
Sixteen minutes past seven in the evening. _____

(1)

41. John started digging in his garden at 15:00 and finished at 16:45. How long did the digging take?

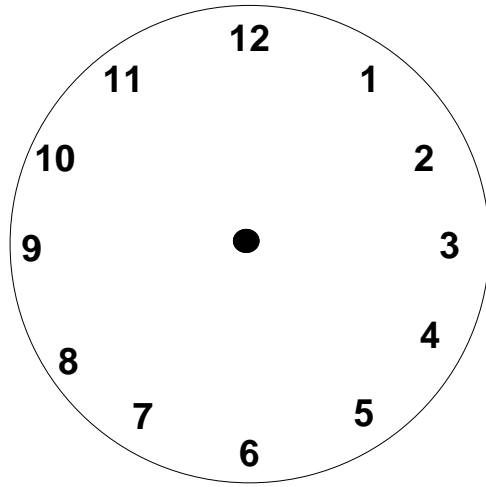
(2)

42. Write the time shown on the clock, in the evening, in 24-hour time.



(2)

43. Draw the hour and minute hands on the clock face to match the time on the digital clock.



(2)

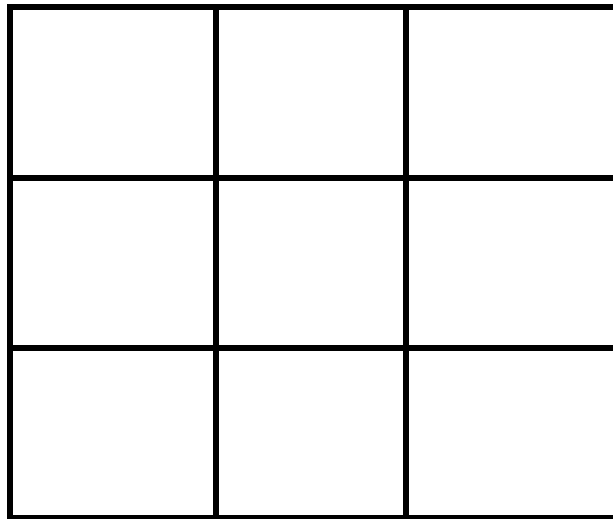
44. $14\frac{1}{4}$ / can be written as _____ / and _____ m/

(2)

45. The length of my scarf is 2 metres. How long is it in centimetres?

(1)

46. How many squares are there in the diagram?



(2)