

fkf Practice Tests

Grade 2 Maths

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Books**

Grade 2 Maths Tests

Contents and Printing Guide

This page can be used for selecting material to print for students, note, document may be printed as a paper or electronic (pdf) copy using the page subsets below.

Grade 2 Maths Jamaica State

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Grade 2 California Maths Test

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GRADE TWO END OF YEAR SAMPLE TEST

TABLE OF SPECIFICATION: SECTION A

SECTION A – MULTIPLE CHOICE

Section A comprises 30 multiple-choice items covering the five strands of the curriculum. All items are weighted equally and together are worth 30 marks.

STRANDS	Simple Recall/ Knowledge	Use of Knowledge	Mathematical Reasoning	Total # of Items
Number	7 (Ques.3,14,18,19,23,25,27)	7 (Ques.1,2,13,16,17,21,24)	1 (Quest.28)	15
Measurement		4 (Ques. 4,5,9,15)	4 (Ques. 6, 12,29,30)	8
Geometry	2 (Ques. 7, 26)	1 (Ques. 22)	-	3
Algebra	-	1 (Ques. 20)	1 (Ques. 8)	2
Statistics	-	2 (Ques.,10,11)	0	2
Total # of Items	9	15	6	30

TABLE OF SPECIFICATION: SECTION B

Section B comprises 6 structured questions covering all five strands of the curriculum. Students are required to answer all questions. Items are weighted equally and together are worth 20 marks.

SECTION B

STRANDS	Simple Recall/Knowledge	Use of Knowledge	Mathematical Reasoning	Total # of Marks
Number	-	3 (Ques. 5a, 5c, 6a)	4 (Ques.5b, 6b)	7
Measurement	2 (Ques. 3a, 3b)	2 (Ques. 3c)	-	4
Geometry	-	2 (Ques. 1)	-	2
Algebra	-	-	3 (Ques. 4)	3
Statistics	2 (Ques. 2a, 2b)	2 (Ques.2c, 2d)		4
Total # of Marks	4	9	7	20

SAMPLE END OF YEAR TEST – SECTION A

Grade Two

Mathematics

Sample End of Year Test

Name: _____ Date: _____

SECTION A

CIRCLE THE CORRECT ANSWER FOR EACH OF THE FOLLOWING.

1. Look at the number 195, what is the place value of the 9?
 - a) ones
 - b) tens
 - c) hundreds
 - d) thousands

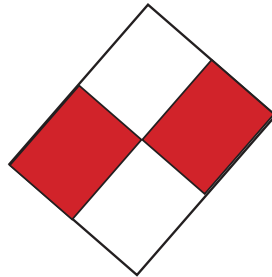
2. What fraction is shaded?

a) $\frac{1}{4}$

b) $\frac{1}{3}$

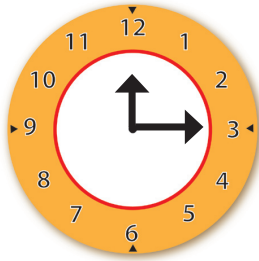
c) $\frac{1}{2}$

d) $\frac{2}{2}$



3. In the series 15, 20, 25, What would the next number be?
 - a) 20
 - b) 30
 - c) 35
 - d) 40

4. What time is shown on the clock?



- a) 12:15
- b) 1:15
- c) 12:30
- d) 12:03

Use the table below to answer questions 5 and 6.

July 2011						
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31						

5. What date is the third Thursday of July?

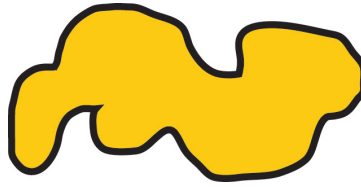
- a) 2th
- b) 21st
- c) 14th
- d) 7th

6. On what day did the month of June end?

- a) Monday
- b) Tuesday
- c) Thursday
- d) Friday

7. What does the diagram show?

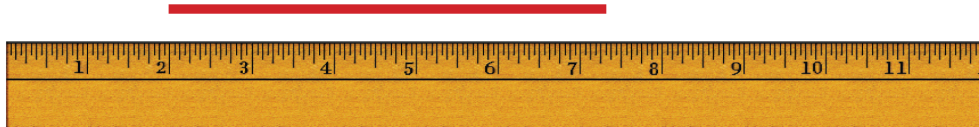
- a) an open path
- b) straight line
- c) a closed path
- d) a curve



8. $10 - \square = 3$, what is the value of \square ?

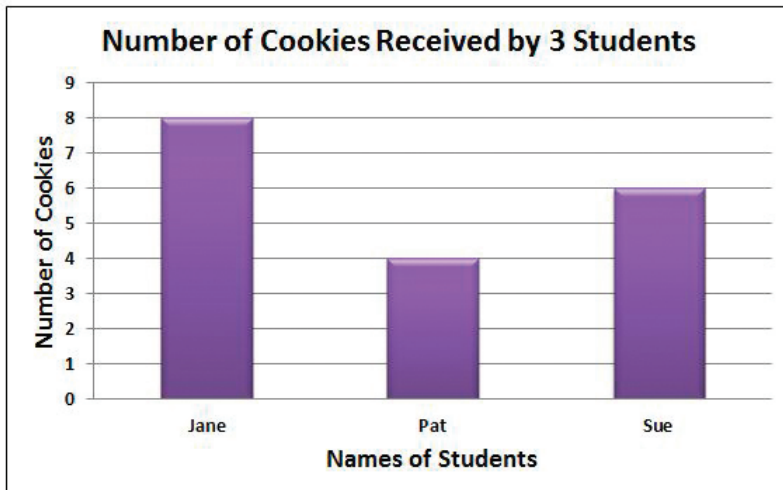
- a) 5
- b) 7
- c) 8
- d) 13

9. What is the approximate length of the line?



- a) 2 cm
- b) 5 cm
- c) 7cm
- d) 12cm

Use the graph below to answer questions 10 – 11.
The graph shows the number of cookies received by 3 students.



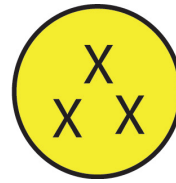
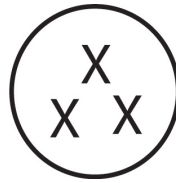
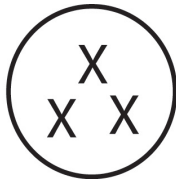
10. How many cookies did Jane receive?
- a) 4
 - b) 6
 - c) 8
 - d) 12
11. How many cookies were given out in all?
- a) 4
 - b) 6
 - c) 8
 - d) 18
12. Ron and Don are brothers. Ron weighs 42kg and Don weighs 48kg. How many kg more than Ron does Don weigh?
- a) 6kg
 - b) 42kg
 - c) 48kg
 - d) 90kg

13. What is $4\frac{1}{2}$ written as an improper fraction?
- a) $\frac{2}{9}$
 - b) $\frac{9}{2}$
 - c) $\frac{1}{2}$
 - d) $\frac{5}{2}$
14. 16 scouts are in a room. 7 scouts are asleep. How many scouts are awake?
- a) 23
 - b) 13
 - c) 10
 - d) 9
15. The game began at 4 o'clock and lasted for half an hour. At what time did it end?
- a) 5 o'clock
 - b) 4:30
 - c) 6 o'clock
 - d) 5:30
16. Three eggs cost \$45. A small bread costs \$58. What is the total cost for 3 eggs and 1 small bread?
- a) \$113
 - b) \$103
 - c) \$93
 - d) \$13

17. Mary has 12 cookies. She gives away one-quarter of her share.
How many cookies did she give away?

- a) 9
- b) 6
- c) 4
- d) 3

18. What fraction of the set is shaded?



- a) $\frac{1}{4}$
- b) $\frac{3}{4}$
- c) $\frac{1}{12}$
- d) $\frac{1}{2}$

19. Insert the correct symbol to make the statement true.

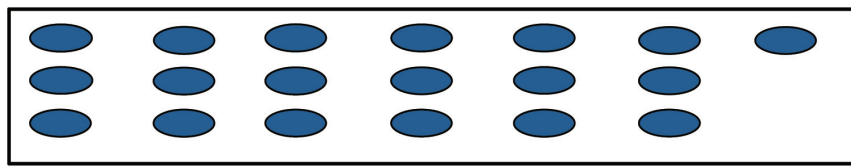
17 _____ 15

- a) =
- b) >
- c) <
- d) +

20. Sarah has 29 sweets in a bag. Suzan then gives her p number of sweets. She now has 44 sweets. How many sweets did Suzan give her?

- a) 15
- b) 19
- c) 25
- d) 73

21. The following can be written as:



Tens	Ones
1	6

a)

Tens	Ones
1	9

b)

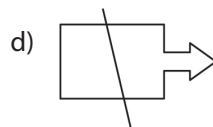
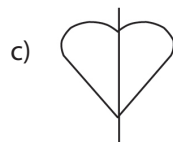
Tens	Ones
2	0

c)

Tens	Ones
9	1

d)

22. Which of the following shows line of symmetry?



23. What is the value of $\frac{1}{7} + \frac{3}{7}$?

- a) $\frac{4}{7}$
- b) $\frac{4}{14}$
- c) $\frac{2}{7}$
- d) $\frac{2}{14}$

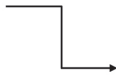



24. What is 145 written in expanded form?

- a) $100 + 4 + 50$
- b) $100 + 4 + 5$
- c) $100 + 40 + 5$
- d) $1 + 4 + 5$

25. Thomas has \$185. He spends \$ 25. How much money does he have left?

- a) \$155
- b) \$160
- c) \$165
- d) \$170

26. Which of the following shows a curved path?

- a) 
- b) 
- c) 
- d) 

27. Calculate the value of $\frac{8}{9} - \frac{6}{9}$

a) $\frac{14}{18}$

b) $\frac{2}{9}$

c) $\frac{14}{9}$

d) $\frac{2}{0}$

28. A cat has 1 nose and 4 legs. Two cats have 2 noses and 8 legs.



How many cats are there if there are 16 legs and 4 noses?

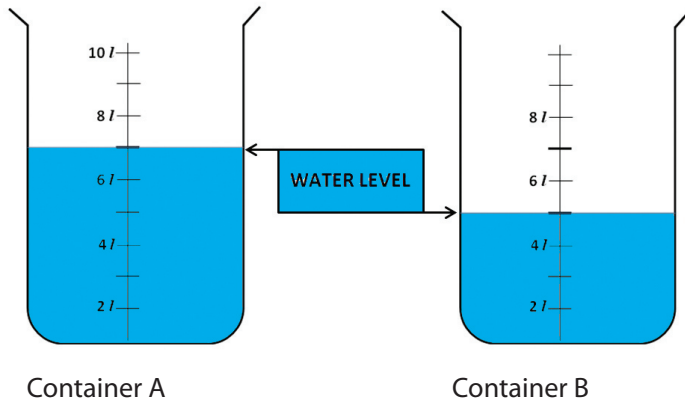
a) 20

b) 15

c) 6

d) 4

29.

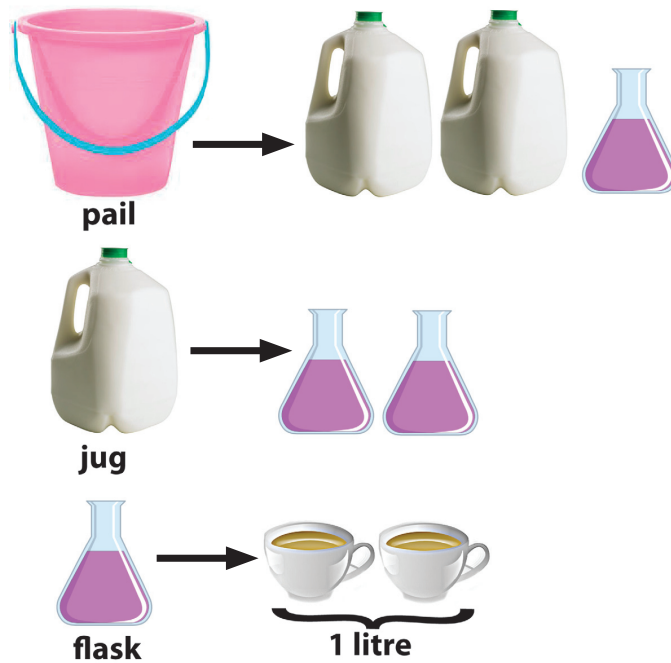


What is the total volume of water in both containers A and B?

- a) 10 L
- b) 11 L
- c) 12 L
- d) 14 L

30. The pail can hold _____ litres of water

- a) 3 litres
- b) 5 litres
- c) 7 litres
- d) 9 litres



SAMPLE END OF YEAR TEST – SECTION B

Grade Two

Mathematics

Sample End of Year Test


Name: _____

Date: _____

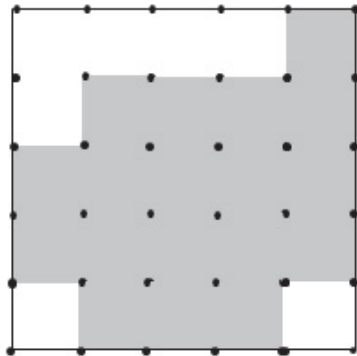
SECTION B


ANSWER ALL QUESTIONS IN THIS SECTION

1. Study the figure below.












a) How many  are on the figure below?

(1 mark)



b) How many more  are needed to complete the square? (1 mark)

2. The table shows the number of marbles that Shawn and Toni-Ann have. Answer the following questions from the table.

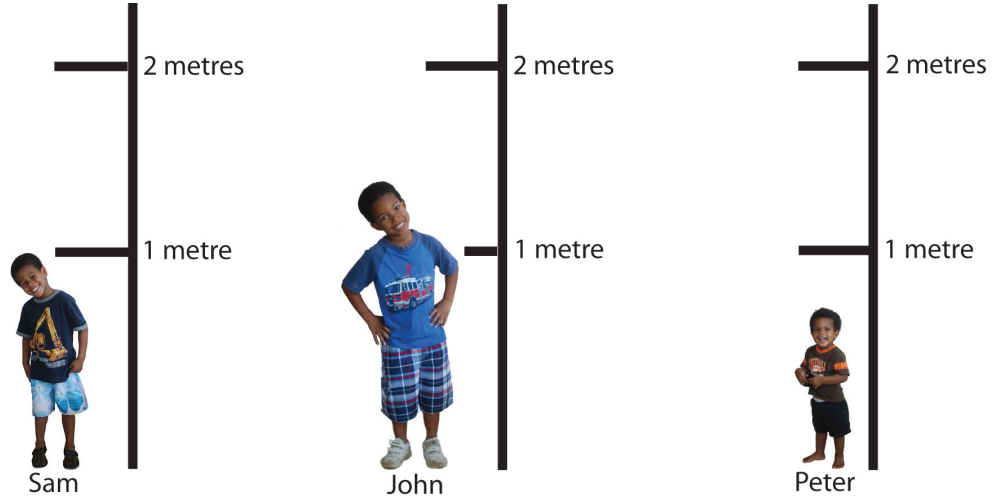
Shawn							
Toni-Ann							



represents 1 marble

- Shawn has _____ marbles. (1 mark)
- Toni-Ann has _____ marbles. (1 mark)
- Toni-Ann has _____ more marbles than Shawn. (1 mark)
- How many marbles do they both have in all? _____ (1 mark)

3. Look at the pictures. Answer the questions.

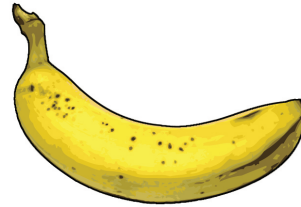


- Who is 1 metre tall? _____ (1 mark)
- _____ is shorter than 1 metre (1 mark)
- _____ is shorter than _____ who is taller than _____. (2 marks)

4. Ben had n marbles. His friend Akeem gave him 15 more.
He now has 29 marbles. How many marbles did Ben have before? _____ (3 marks)
5. If you have \$50, which two of the items below could you buy? _____



\$60



\$20



\$35



\$25

a) I could buy _____ (1 mark)

b) How much change would you have left from the \$50?

_____ (2 marks)

c) Which two items could be bought for \$95?

_____ (1 mark)

6. Julia packs some cookies into some small and big boxes.

She packs 5 cookies into each small box.

She packs 2 more cookies into each big box than each small box.



a) How many cookies does she pack into 2 small boxes? _____ (1 mark)

b) How many cookies does she pack into 3 big boxes? _____ (2 marks)

SAMPLE END OF YEAR TEST – ANSWER SHEET

Answer Sheet Grade Two Sample Test

- | | | | |
|-----|---|-----|---|
| 1. | B | 16. | B |
| 2. | C | 17. | D |
| 3. | B | 18. | A |
| 4. | A | 19. | B |
| 5. | B | 20. | A |
| 6. | C | 21. | B |
| 7. | C | 22. | C |
| 8. | B | 23. | A |
| 9. | B | 24. | C |
| 10. | C | 25. | B |
| 11. | D | 26. | C |
| 12. | A | 27. | B |
| 13. | B | 28. | D |
| 14. | D | 29. | C |
| 15. | B | 30. | B |

Introduction - Grade 2 Mathematics

The following released test questions are taken from the Grade 2 Mathematics Standards Test. This test is one of the California Standards Tests administered as part of the Standardized Testing and Reporting (STAR) Program under policies set by the State Board of Education.

All questions on the California Standards Tests are evaluated by committees of content experts, including teachers and administrators, to ensure their appropriateness for measuring the California academic content standards in Grade 2 Mathematics. In addition to content, all items are reviewed and approved to ensure their adherence to the principles of fairness and to ensure no bias exists with respect to characteristics such as gender, ethnicity, and language.

This document contains released test questions from the California Standards Test forms in 2003, 2004, 2005, and 2006. First on the pages that follow are lists of the standards assessed on the Grade 2 Mathematics Test. Next are released test questions. Following the questions is a table that gives the correct answer for each question, the content standard that each question is measuring, and the year each question last appeared on the test.

The following table lists each strand/reporting cluster, the number of items that appear on the exam, and the number of released test questions that appear in this document.

STRAND/REPORTING CLUSTER	NUMBER OF QUESTIONS ON EXAM	NUMBER OF RELEASED TEST QUESTIONS
Number Sense – Place Value, Addition, and Subtraction	15	15
Number Sense – Multiplication, Division, and Fractions	23	22
Algebra and Functions	6	6
Measurement and Geometry	14	14
Statistics, Data Analysis, and Probability	7	7
TOTAL	65	64

In selecting test questions for release, three criteria are used: (1) the questions adequately cover a selection of the academic content standards assessed on the Grade 2 Mathematics Test; (2) the questions demonstrate a range of difficulty; and (3) the questions present a variety of ways standards can be assessed. These released test questions do not reflect all of the ways the standards may be assessed. Released test questions will not appear on future tests.

In Grade 2, the actual Mathematics question does not appear in the test booklet but is read to the students by the teacher administering the test. In this booklet, the questions are printed in bold-faced capital letters.

For more information about the California Standards Tests, visit the California Department of Education's Web site at <http://www.cde.ca.gov/ta/tg/sr/resources.asp>.

THE NUMBER SENSE STRAND

In Grade 2, there are two reporting clusters within the Number Sense strand: 1) Place Value, Addition, and Subtraction and 2) Multiplication, Division, and Fractions. This booklet contains released test questions for each of these clusters.

The following five California content standards are included in the Place Value, Addition, and Subtraction reporting cluster of the Number Sense strand and are represented in this booklet by 15 test questions. These questions represent only some ways in which these standards may be assessed on the Grade 2 California Mathematics Standards Test.

CALIFORNIA CONTENT STANDARDS IN THIS REPORTING CLUSTER

Number Sense

Standard Set 1.0 Students understand the relationship between numbers, quantities, and place value in whole numbers up to 1,000:

2NS1.1* Count, read, and write whole numbers to 1,000 and identify the place value for each digit.

2NS1.2 Use words, models, and expanded forms (e.g., $45 = 4 \text{ tens} + 5$) to represent numbers (to 1,000).

2NS1.3* Order and compare whole numbers to 1,000 by using the symbols $<$, $=$, $>$.

Standard Set 2.0 Students estimate, calculate, and solve problems involving addition and subtraction of two- and three-digit numbers:

2NS2.1* Understand and use the inverse relationship between addition and subtraction (e.g., an opposite number sentence for $8 + 6 = 14$ is $14 - 6 = 8$) to solve problems and check solutions.

2NS2.2* Find the sum or difference of two whole numbers up to three digits long.

* Denotes key standards (*Mathematics Framework for California Public Schools*)

The following nine California content standards are included in the Multiplication, Division, and Fractions reporting cluster of the Number Sense strand and are represented in this booklet by 22 test questions. These questions represent only some ways in which these standards may be assessed on the Grade 2 California Mathematics Standards Test.

CALIFORNIA CONTENT STANDARDS IN THIS REPORTING CLUSTER

Number Sense

Standard Set 3.0* Students model and solve simple problems involving multiplication and division:

2NS3.1*	Use repeated addition, arrays, and counting by multiples to do multiplication.
2NS3.2*	Use repeated subtraction, equal sharing, and forming equal groups with remainders to do division.
2NS3.3*	Know the multiplication tables of 2s, 5s, and 10s (to “times 10”) and commit them to memory.

Standard Set 4.0 Students understand that fractions and decimals may refer to parts of a set and parts of a whole:

2NS4.1*	Recognize, name, and compare unit fractions from $\frac{1}{12}$ to $\frac{1}{2}$.
2NS4.2*	Recognize fractions of a whole and parts of a group (e.g., one-fourth of a pie, two-thirds of 15 balls).
2NS4.3*	Know that when all fractional parts are included, such as four-fourths, the result is equal to the whole and to one.

Standard Set 5.0 Students model and solve problems by representing, adding, and subtracting amounts of money:

2NS5.1*	Solve problems using combinations of coins and bills.
2NS5.2*	Know and use the decimal notation and the dollar and cent symbols for money.

Standard Set 6.0 Students use estimation strategies in computation and problem solving that involve numbers that use the ones, tens, hundreds, and thousands places:

2NS6.1	Recognize when an estimate is reasonable in measurements (e.g., closest inch).
--------	--

* Denotes key standards (*Mathematics Framework for California Public Schools*)

THE ALGEBRA AND FUNCTIONS STRAND/REPORTING CLUSTER

The following three California content standards are included in the Algebra and Functions strand/reporting cluster and are represented in this booklet by six test questions. These questions represent only some ways in which these standards may be assessed on the Grade 2 California Mathematics Standards Test.

CALIFORNIA CONTENT STANDARDS IN THIS STRAND/CLUSTER

Algebra and Functions

Standard Set 1.0	Students model, represent, and interpret number relationships to create and solve problems involving addition and subtraction:
2AF1.1*	Use the commutative and associative rules to simplify mental calculations and to check results.
2AF1.2	Relate problem situations to number sentences involving addition and subtraction.
2AF1.3	Solve addition and subtraction problems by using data from simple charts, picture graphs, and number sentences.

* Denotes key standards (*Mathematics Framework for California Public Schools*)

THE MEASUREMENT AND GEOMETRY STRAND/REPORTING CLUSTER

The following seven California content standards are included in the Measurement and Geometry strand/reporting cluster and are represented in this booklet by 14 test questions. These questions represent only some ways in which these standards may be assessed on the Grade 2 California Mathematics Standards Test.

CALIFORNIA CONTENT STANDARDS IN THIS STRAND/CLUSTER

Measurement and Geometry	
Standard Set 1.0	Students understand that measurement is accomplished by identifying a unit of measure, iterating (repeating) that unit, and comparing it to the item to be measured:
2MG1.1	Measure the length of objects by iterating (repeating) a nonstandard or standard unit.
2MG1.2	Use different units to measure the same object and predict whether the measure will be greater or smaller when a different unit is used.
2MG1.3*	Measure the length of an object to the nearest inch and/or centimeter.
2MG1.4	Tell time to the nearest quarter hour and know relationships of time (e.g., minutes in an hour, days in a month, weeks in a year).
2MG1.5	Determine the duration of intervals of time in hours (e.g., 11:00 a.m. to 4:00 p.m.).
Standard Set 2.0*	Students identify and describe the attributes of common figures in the plane and of common objects in space:
2MG2.1*	Describe and classify plane and solid geometric shapes (e.g., circle, triangle, square, rectangle, sphere, pyramid, cube, rectangular prism) according to the number and shape of faces, edges, and vertices.
2MG2.2*	Put shapes together and take them apart to form other shapes (e.g., two congruent right triangles can be arranged to form a rectangle).

* Denotes key standards (*Mathematics Framework for California Public Schools*)

THE STATISTICS, DATA ANALYSIS, AND PROBABILITY STRAND/REPORTING CLUSTER

The following four California content standards are included in the Statistics, Data Analysis, and Probability strand/reporting cluster and are represented in this booklet by seven test questions. These questions represent only some ways in which these standards may be assessed on the Grade 2 California Mathematics Standards Test.

CALIFORNIA CONTENT STANDARDS IN THIS STRAND/CLUSTER

Statistics, Data Analysis, and Probability

Standard Set 1.0* Students collect numerical data and record, organize, display, and interpret the data on bar graphs and other representations:

2PS1.1	Record numerical data in systematic ways, keeping track of what has been counted.
2PS1.2	Represent the same data set in more than one way (e.g., bar graphs and charts with tallies).
2PS1.3	Identify features of data sets (range and mode).
2PS1.4	Ask and answer simple questions related to data representations.

* Denotes key standards (*Mathematics Framework for California Public Schools*)

The questions in brackets are not printed in the test booklet. The test administrator reads these questions aloud to students.

1 [A NUMBER HAS NINE ONES, SIX TENS, AND EIGHT HUNDREDS. WHAT IS THE NUMBER?]

869

896

968

986

A**B****C****D**

CSM02136

2 [WHAT IS THE VALUE OF THE FIVE IN FIVE HUNDRED TWENTY-SIX?]

526

5

50

500

5000

A**B****C****D**

CSM00994

3 [LOOK AT THE NUMBER. WHICH DIGIT IS IN THE TENS PLACE?]

962

2

6

9

10

A**B****C****D**

CSM10001

4 [WHAT IS ANOTHER NAME FOR FOUR HUNDRED PLUS FORTY PLUS EIGHT?]

4408

A

448

B

400408

C

4048

D

CSM00361

5 [WHAT IS ANOTHER WAY TO WRITE NINE HUNDRED EIGHTY-SEVEN?]

 $900 + 87 + 7$

A

 $980 + 70 + 0$

C

 $700 + 80 + 9$

B

 $900 + 80 + 7$

D

CSM10379

6 [WHICH NUMBER SENTENCE IS TRUE?]

 $359 < 375$

A

 $359 > 375$

B

 $359 < 359$

C

 $359 > 359$

D

CSM01005

7 [WHICH NUMBER GOES IN THE BOX?]

$$386 < \square < 521$$

297

A

334

B

410

C

528

D

CSM10265

8 [WHICH SIGN MAKES THE NUMBER SENTENCE TRUE?]

$$22 + 10 \square 32$$

=

A

+

B

>

C

<

D

CSM10665

9 [WHICH NUMBER GOES IN THE BOX?]

$$91 > \square$$

90

A

92

B

93

C

94

D

CSM10484

- 10** [SOPHIE DID THIS SUBTRACTION PROBLEM. WHICH ADDITION PROBLEM SHOWS THAT SHE GOT THE RIGHT ANSWER?]

$$\begin{array}{r} 85 \\ - 44 \\ \hline 41 \end{array}$$

$$\begin{array}{r} 41 \\ + 85 \\ \hline \end{array}$$

A

$$\begin{array}{r} 44 \\ + 85 \\ \hline \end{array}$$

B

$$\begin{array}{r} 41 \\ + 44 \\ \hline \end{array}$$

C

$$\begin{array}{r} 44 \\ + 44 \\ \hline \end{array}$$

D

CSM01017

- 11** [WHICH OF THESE CAN BE USED TO CHECK THE ANSWER TO THE PROBLEM IN THE BOX?]

$$4 + 3 = 7$$

A $7 + 3 = 10$

C $2 + 5 = 7$

B $7 - 4 = 3$

D $10 - 3 = 7$

CSM02141

- 12** [WHAT IS THE SOLUTION TO THIS PROBLEM?]

$$\begin{array}{r} 419 \\ - 12 \\ \hline \end{array}$$

431

A

421

B

417

C

407

D

CSM02158

13

$$\begin{array}{r} 123 \\ + 27 \\ \hline \end{array}$$

50

A

140

B

144

C

150

D

CSM10540

14

[TONI HAD SEVEN HUNDRED FIFTY-NINE CUCUMBERS. SHE SOLD FIVE HUNDRED SIXTY-THREE OF THEM. HOW MANY CUCUMBERS DOES TONI HAVE LEFT?]

759

563

116

A

196

B

216

C

296

D

CSM10381

15

[WHAT IS TWO HUNDRED FIFTEEN PLUS FIFTY-SEVEN?]

215

$$\begin{array}{r} 215 \\ + 57 \\ \hline \end{array}$$

158

A

262

B

271

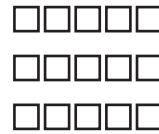
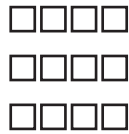
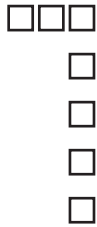
C

272

D

16 [WHICH DRAWING SHOWS THREE TIMES FIVE?]

3×5



A

B

C

D

CSM00956

17 [DAVID READS TWO PAGES EVERY FIVE MINUTES. HOW MANY PAGES WILL DAVID HAVE READ AFTER TWENTY-FIVE MINUTES?]

David's Reading

Minutes	5	10	15	20	25
Pages	2	4	6	8	

9 pages

10 pages

11 pages

12 pages

A

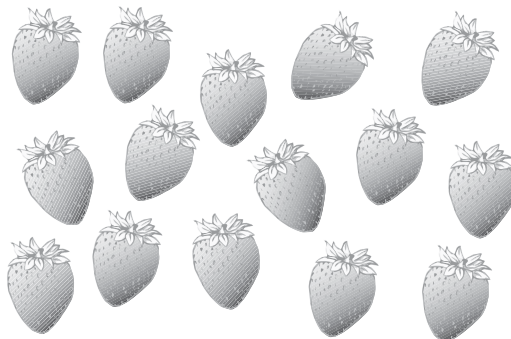
B

C

D

CSM10419

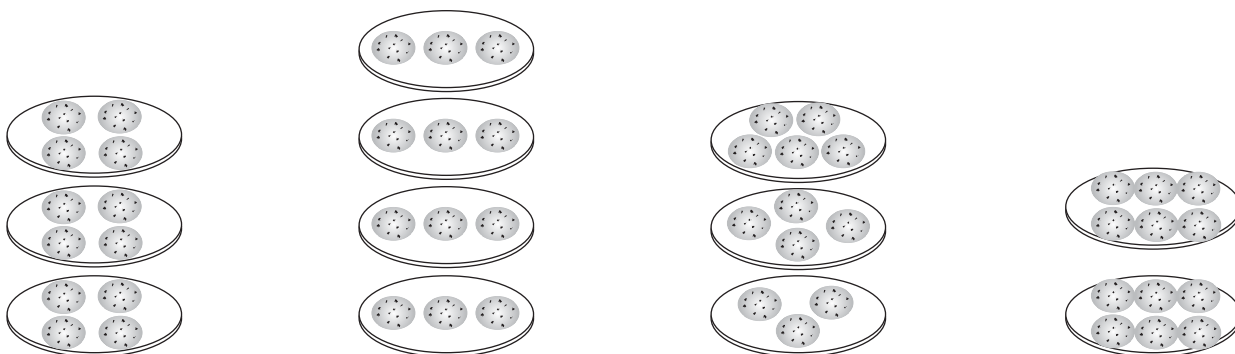
18 [KAYLA HAS THESE STRAWBERRIES. SHE WILL GIVE FOUR STRAWBERRIES TO EACH OF HER THREE FRIENDS. HOW MANY STRAWBERRIES WILL BE LEFT FOR KAYLA?]



- 1
A
- 2
B
- 3
C
- 4
D

CSM02110

19 [WHICH PICTURE SHOWS HOW THREE CHILDREN SHOULD SHARE TWELVE COOKIES EQUALLY?]

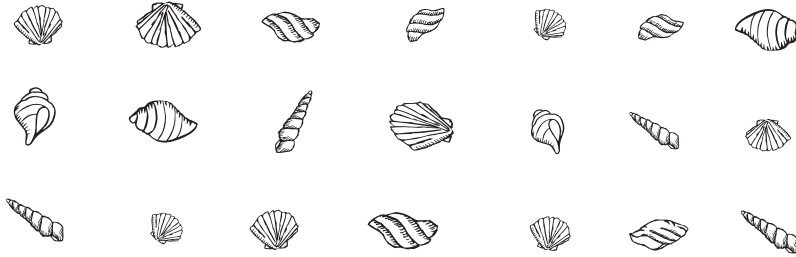


- A**
- B**
- C**
- D**

CSM20094

20 [THERE ARE TWENTY-ONE SHELLS. THE SHELLS ARE EQUALLY DIVIDED AMONG THREE STUDENTS. HOW MANY SHELLS WILL EACH STUDENT GET?]

21 Shells



- 6
A
- 7
B
- 8
C
- 9
D

CSM10014

21 [THERE ARE NINE BENCHES IN A PARK. THERE ARE TWO PEOPLE SITTING ON EACH BENCH. HOW MANY PEOPLE ARE SITTING ON THE NINE BENCHES ALL TOGETHER?]

9



11

14

16

18

2



A

B

C

D

CSM02108

Released Test Questions

Math

2

- 22** [THERE WERE TEN FROGS IN A POND. EACH FROG HAD FOUR LEGS. HOW MANY FROG LEGS WERE THERE ALL TOGETHER?]

10



4 legs

14

A

40

B

50

C

104

D

CSM00037

- 23** [WHICH NUMBER SHOWS THE ANSWER TO FIVE TIMES SIX?]

11

A

25

B

30

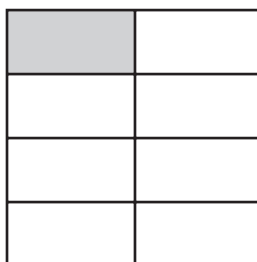
C

35

D

CSM10076

- 24** [WHAT FRACTIONAL PART OF THIS FIGURE IS SHADED?]

 $\frac{1}{8}$ **A** $\frac{1}{7}$ **B** $\frac{1}{4}$ **C** $\frac{1}{2}$ **D**

CSM02147

25 [WHICH OF THE FOLLOWING FRACTIONS IS THE GREATEST?]

$$\frac{1}{9}$$

A

$$\frac{1}{2}$$

B

$$\frac{1}{5}$$

C

$$\frac{1}{10}$$

D

CSM00393

26 [LOOK AT THE FRACTION BARS. WHICH FRACTION BAR SHOWS ONE-SIXTH SHADED?]



A



C



B



D

CSM10017

27 [WHAT FRACTION OF THIS SHAPE IS SHADED?]



$$\frac{1}{2}$$

A

$$\frac{2}{3}$$

B

$$\frac{3}{2}$$

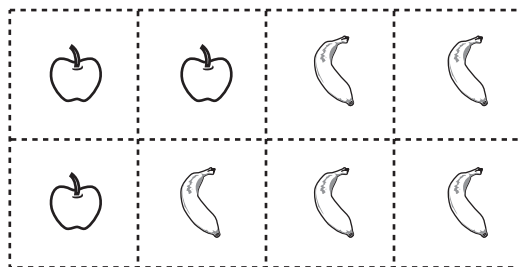
C

$$\frac{3}{1}$$

D

CSM01446

28 [WHAT FRACTION OF THE GROUP OF STICKERS IS APPLE STICKERS?]



$$\frac{3}{5}$$

A

$$\frac{5}{3}$$

B

$$\frac{3}{8}$$

C

$$\frac{8}{3}$$

D

CSM01025

29 [WHICH FRACTION IS EQUAL TO ONE WHOLE?]

$$\frac{1}{3}$$

A

$$\frac{1}{8}$$

B

$$\frac{2}{3}$$

C

$$\frac{8}{8}$$

D

CSM01018

30 [A TEACHER DIVIDES A WHOLE CLASS INTO GROUPS TO WORK ON A CLASS PROJECT. EACH GROUP HAS ONE-SIXTH OF ALL THE CHILDREN IN THE CLASS. HOW MANY GROUPS ARE THERE?]

2

A

6

B

7

C

12

D

CSM10466

2

Math

Released Test Questions

31 [MONIQUE HAS FOUR QUARTERS, TWO DIMES, AND ONE NICKEL. HOW MUCH MONEY DOES SHE HAVE?]



\$1.25

A

\$0.75

B

\$1.05

C

\$1.45

D

CSM00998

32 [JENA HAS THE MONEY YOU SEE IN THE BOX. WHICH IS A GREATER AMOUNT OF MONEY THAN JENA'S?]



A



B



C



D

CSM00026

Released Test Questions

Math

2

33 [SHAMIKA IS SAVING MONEY TO BUY A BOOK. SHE HAS SAVED ONE FIVE-DOLLAR BILL, THREE ONE-DOLLAR BILLS, ONE QUARTER, THREE DIMES, AND FOUR NICKELS. HOW MUCH MONEY DOES SHE HAVE SO FAR?]



\$7.95

A

\$8.75

B

\$8.55

C

\$7.75

D

CSM00571

34 [LEE HAS THE MONEY YOU SEE IN THE BOX. HOW MUCH MONEY IS THIS?]



\$2.15

A

\$2.20

B

\$2.25

C

\$2.30

D

CSM02097

35 [WHAT IS ANOTHER WAY TO WRITE FORTY-FIVE CENTS?]

45¢

\$0.45

A

\$4.05

B

\$4.50

C

\$45

D

CSM20427

36 [JAMES HAS TWO DOLLARS AND FORTY-SIX CENTS. WHICH IS A CORRECT WAY TO WRITE THIS AMOUNT OF MONEY?]

\$2.46

A

\$2.46¢

B

\$2 and 4.6¢

C

\$2 and .46¢

D

CSM00027

37 [ABOUT HOW LONG IS A DOLLAR BILL?]

1 foot

A

1 inch

B

6 feet

C

6 inches

D

CSM10490

38 [WHAT NUMBER GOES IN THE BOX TO MAKE THIS NUMBER SENTENCE TRUE?]

$$15 + 8 = \square + 15$$

7

8

15

23

A

B

C

D

CSM00991

39 [LOOK AT THE NUMBER SENTENCE IN THE BOX. WHICH OF THE FOLLOWING HAS THE SAME VALUE AS SIX PLUS FIVE?]

$$6 + 5 = 11$$

A $6 - 5 = \square$

C $5 \times 6 = \square$

B $5 + 6 = \square$

D $5 - 6 = \square$

CSM02148

40 [LOOK AT THE ADDITION PROBLEM IN THE BOX. WHICH OTHER PROBLEM HAS THE SAME ANSWER?]

$$4 + 2 + 6 = 12$$

A $6 + 4 + 3 = \square$

C $4 + 12 + 6 = \square$

B $12 + 6 + 2 = \square$

D $2 + 4 + 6 = \square$

- 41** [ANDREW HAD FIFTEEN PENNIES. HE FOUND SOME MORE. NOW HE HAS THIRTY-THREE. WHICH NUMBER SENTENCE COULD BE USED TO FIND HOW MANY PENNIES HE FOUND?]

$$15 + \square = 33$$

A

$$\square - 33 = 15$$

C

$$15 + 33 = \square$$

B

$$\square - 15 = 33$$

D

CSM01477

- 42** [MR. LEE'S CLASS COLLECTED FIVE HUNDRED THREE CANS FOR RECYCLING. MS. WEBB'S CLASS COLLECTED FOUR HUNDRED FIFTY CANS. WHICH NUMBER SENTENCE CAN BE USED TO FIND HOW MANY MORE CANS MR. LEE'S CLASS COLLECTED THAN MS. WEBB'S?]

503**450**

$$405 + 530 =$$

A

$$450 - 503 =$$

C

$$503 + 450 =$$

B

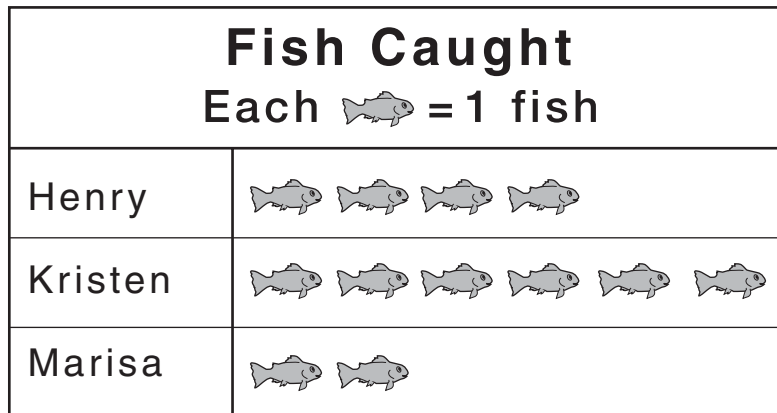
$$503 - 450 =$$

D

CSM10084

43

[LOOK AT THE GRAPH. HOW MANY FISH DID HENRY AND KRISTEN CATCH ALL TOGETHER?]



4

6

10

12

A

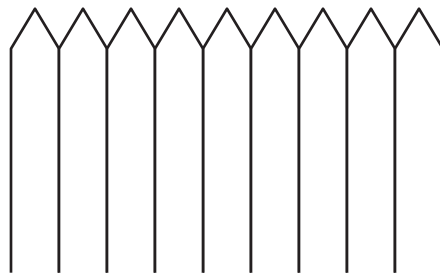
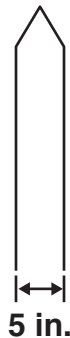
B

C

D

CSM02090

44 [EACH FENCE POST IS FIVE INCHES WIDE. HOW WIDE IS THE FENCE IN THE PICTURE?]



30 inches

45 inches

50 inches

65 inches

A

B

C

D

CSM10086

45 [THIS COMB IS ABOUT 12 BUTTONS LONG. ABOUT HOW MANY TOOTHPICKS LONG IS THE COMB?]



4

8

10

12

A

B

C

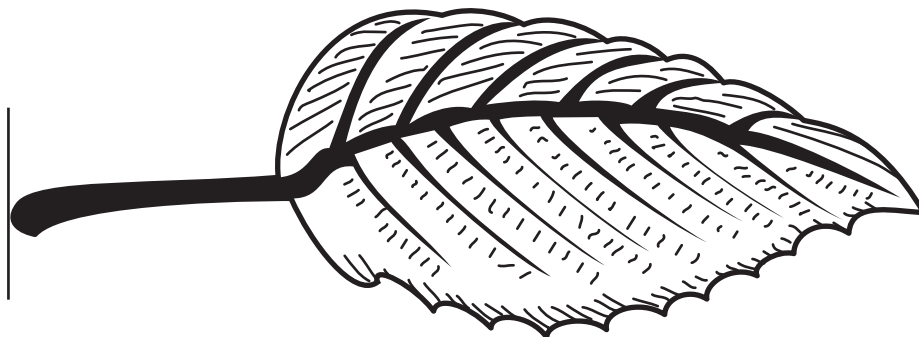
D

Released Test Questions

Math

2

- 46** [LOOK AT THE PICTURE OF THE LEAF. MEASURE THE LENGTH OF THE LEAF AND STEM IN INCHES. ABOUT HOW LONG ARE THE LEAF AND STEM TOGETHER?]



4 inches

5 inches

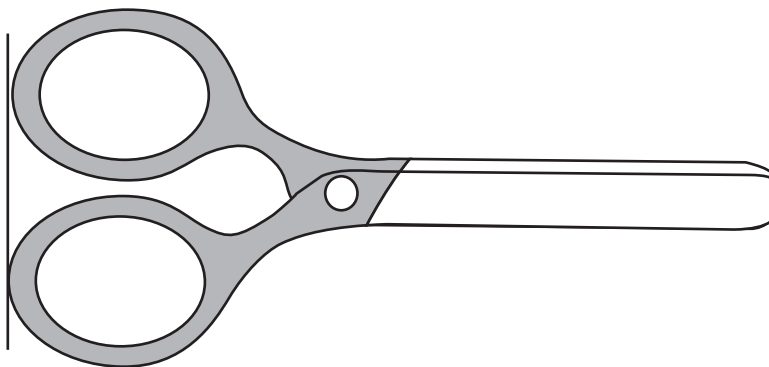
6 inches

7 inches

A**B****C****D**

CSM10032

- 47** [USE YOUR RULER TO MEASURE THE SCISSORS. HOW MANY INCHES LONG ARE THE SCISSORS?]



2

4

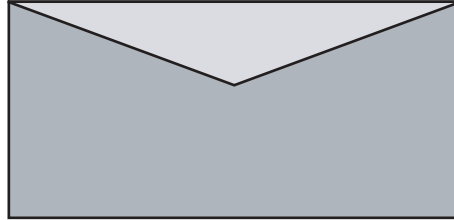
6

10

A**B****C****D**

CSM20032

48 [HOW MANY CENTIMETERS LONG IS THE ENVELOPE?]



2

3

6

7

A

B

C

D

CSM20281

49 [SEAN IS GOING ON VACATION TO VISIT HIS GRANDPARENTS. HE WILL BE GONE ONE MONTH. ABOUT HOW MANY DAYS WILL SEAN BE GONE?]

7 days

30 days

52 days

365 days

A

B

C

D

CSM00373

50 [NATALIE WALKED FOR ONE HOUR. HOW MANY MINUTES DID NATALIE WALK?]

12

24

52

60

A

B

C

D

CSM20006

Released Test Questions

Math

2

- 51** [A MOVIE STARTED AT ELEVEN O’CLOCK A.M. AND LASTED THREE HOURS. AT WHAT TIME DID THE MOVIE END?]

12:00 p.m.

A

1:00 p.m.

B

2:00 p.m.

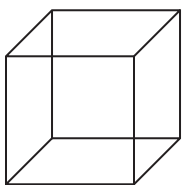
C

3:00 p.m.

D

CSM20060

- 52** [HOW MANY FACES DOES A CUBE HAVE?]



4

A

5

B

6

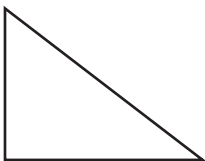
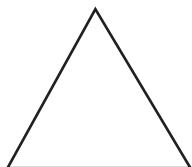
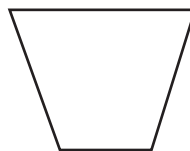
C

8

D

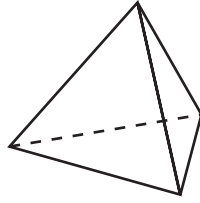
CSM00996

- 53** [LOOK AT THE PAIRS OF SHAPES. WHICH IS A PAIR OF RECTANGLES?]

**A****B****C****D**

CSM01495

- 54** [LOOK AT THE PYRAMID. WHAT SHAPE ARE THE FACES IN THIS PYRAMID?]



triangle

A

square

B

rectangle

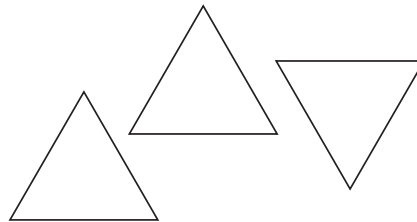
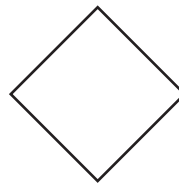
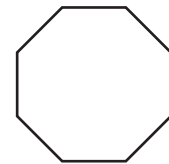
C

kite

D

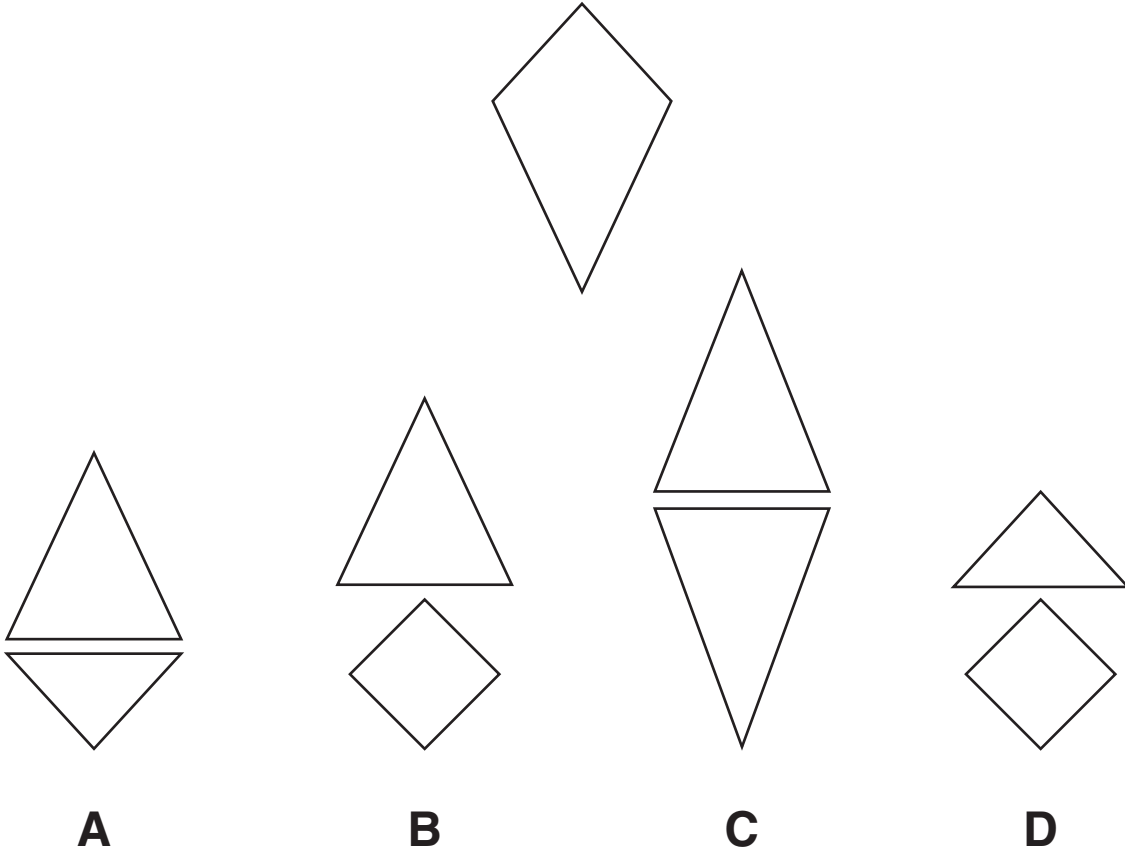
CSM10036

- 55** [LOOK AT THE THREE TRIANGLES. WHICH OF THE FOLLOWING SHAPES CAN BE MADE FROM THE THREE TRIANGLES?]

**A****B****C****D**

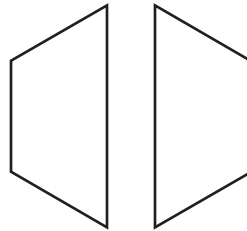
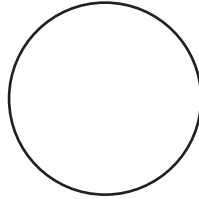
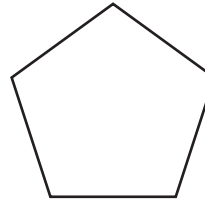
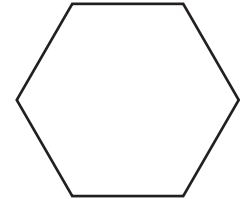
CSM10412

56 [WHAT TWO SHAPES CAN BE JOINED WITHOUT OVERLAP TO FORM THIS KITE?]



CSM20074

- 57** [THESE TWO SHAPES CAN BE PUT TOGETHER SIDE BY SIDE TO MAKE A NEW SHAPE. WHICH PICTURE SHOWS THIS NEW SHAPE?]

**A****B****C****D**

CSM10092

Released Test Questions

Math

58 [THE STUDENTS IN MRS. KIM'S CLASS ARE VOTING FOR THE BOOTH THEY WANT TO HAVE AT THE FUN FAIR. SIX STUDENTS WANT FACE PAINTING. FIVE STUDENTS WANT A RELAY RACE. TWELVE STUDENTS WANT THE RING TOSS. WHICH TALLY CHART SHOWS THESE RESULTS?]



Fun Fair	
Face Painting	I
Relay Race	
Ring Toss	

A

Fun Fair	
Face Painting	
Relay Race	
Ring Toss	I

C

Fun Fair	
Face Painting	
Relay Race	
Ring Toss	I

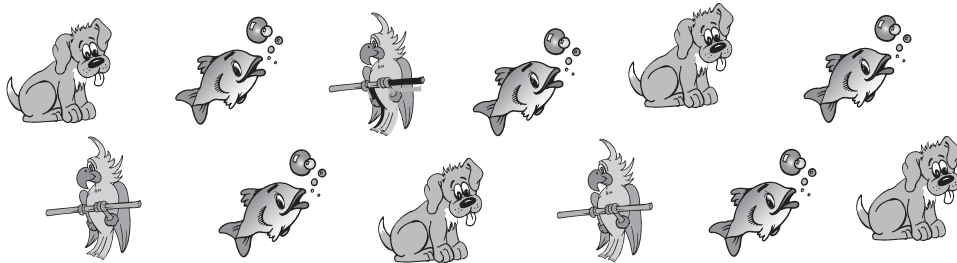
B




Fun Fair	
Face Painting	I
Relay Race	
Ring Toss	

D




59 [WHICH TALLY CHART SHOWS THE CORRECT NUMBER OF PETS IN SAM'S PET SHOP?]

Sam's Pet Shop






Sam's Pet Shop	
	
	
	




A

Sam's Pet Shop	
	
	
	

C

Sam's Pet Shop	
	
	
	

B

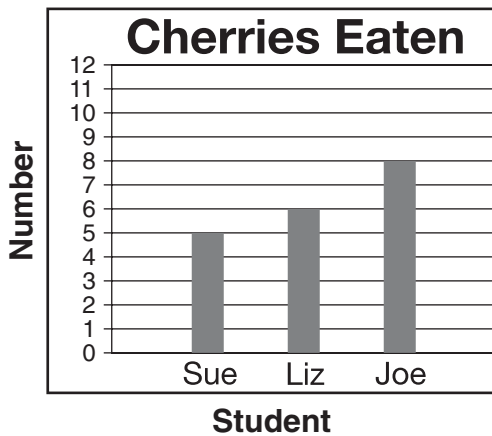
Sam's Pet Shop	
	
	
	

D

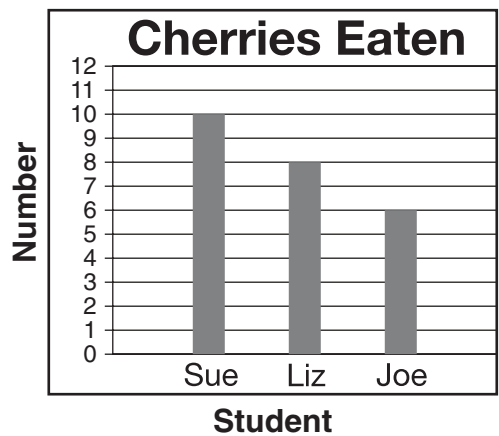
60

[LOOK AT THE TALLY CHART AT THE TOP OF THE PAGE. THE TALLY CHART SHOWS THE NUMBER OF CHERRIES EACH STUDENT ATE. WHICH GRAPH MATCHES THE TALLY MARKS IN THE CHART?]

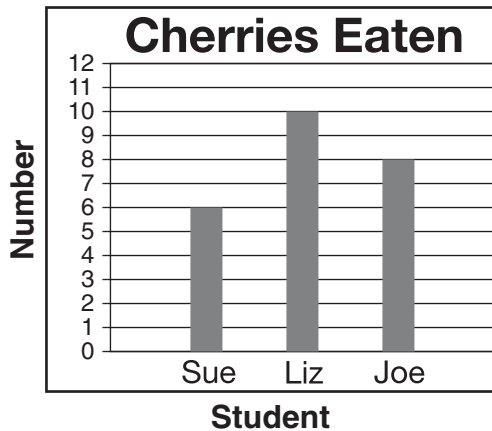
Cherries Eaten	
Sue	
Liz	
Joe	



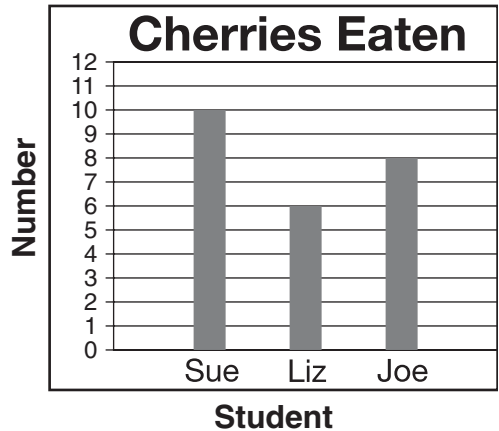
A



C

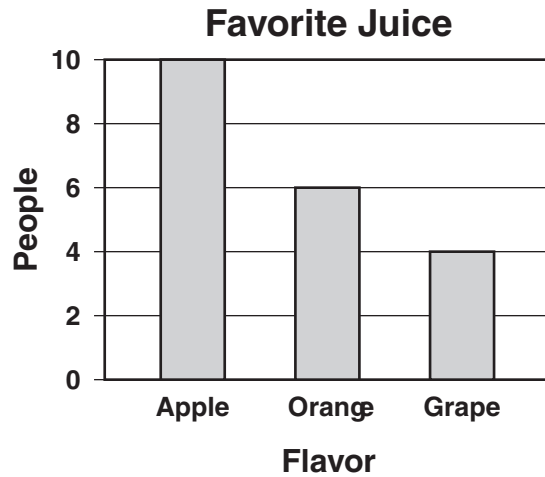


B



D

61 [THE BAR GRAPH SHOWS THE FAVORITE FLAVOR OF JUICE FOR A GROUP OF PEOPLE. WHICH OF THE FOLLOWING TALLY CHARTS MATCHES THE BAR GRAPH?]



Favorite Juice	
Apple	
Orange	
Grape	

A

Favorite Juice	
Apple	
Orange	
Grape	

C

Favorite Juice	
Apple	
Orange	
Grape	

B

Favorite Juice	
Apple	
Orange	
Grape	

D

CSM20449

- 62** [WHAT IS THE DIFFERENCE BETWEEN THE LARGEST HEIGHT AND THE SMALLEST HEIGHT?]

Student Heights	
Student	Height (in inches)
Sara	44
James	42
Su Lin	49
Randy	46
Cara	50

8 inches

A

12 inches

B

42 inches

C

50 inches

D

CSN00003

63

[MS. LEE'S CLASS RECORDED THE TEMPERATURE EACH DAY FOR ONE WEEK. WHAT WAS THE RANGE IN TEMPERATURE BETWEEN THE HIGHEST AND LOWEST TEMPERATURES?]

Sunday — 65° Wednesday — 72° Monday — 68° Thursday — 68° Tuesday — 75° Friday — 64° Saturday — 63° 12° 20° 63° 68°

A

B

C

D

CSM20249

- 64** [CARRIE PRACTICES THE PIANO EACH DAY. THE TABLE SHOWS HOW LONG SHE PRACTICED EACH DAY LAST WEEK. HOW MANY MINUTES LONGER DID SHE PRACTICE ON WEDNESDAY THAN ON TUESDAY? MARK YOUR ANSWER.]

Piano Practice Times

Day	Minutes
Monday	26
Tuesday	24
Wednesday	30
Thursday	35
Friday	15

6

5

4

2

A**B****C****D**

CSN00228

Question Number	Correct Answer	Standard	Year of Test
1	A	2NS1.1	2004
2	C	2NS1.1	2005
3	B	2NS1.1	2006
4	B	2NS1.2	2004
5	D	2NS1.2	2005
6	A	2NS1.3	2003
7	C	2NS1.3	2004
8	A	2NS1.3	2005
9	A	2NS1.3	2006
10	C	2NS2.1	2003
11	B	2NS2.1	2004
12	D	2NS2.2	2003
13	D	2NS2.2	2004
14	B	2NS2.2	2005
15	D	2NS2.2	2006
16	C	2NS3.1	2004
17	B	2NS3.1	2005
18	C	2NS3.2	2003
19	A	2NS3.2	2005
20	B	2NS3.2	2006
21	D	2NS3.3	2003
22	B	2NS3.3	2004
23	C	2NS3.3	2006
24	A	2NS4.1	2003
25	B	2NS4.1	2004
26	A	2NS4.1	2005
27	B	2NS4.2	2003
28	C	2NS4.2	2005
29	D	2NS4.3	2003
30	B	2NS4.3	2005
31	A	2NS5.1	2003
32	B	2NS5.1	2004
33	B	2NS5.1	2006
34	D	2NS5.2	2003
35	A	2NS5.2	2005
36	A	2NS5.2	2006
37	D	2NS6.1	2004
38	B	2AF1.1	2003
39	B	2AF1.1	2004
40	D	2AF1.1	2005
41	A	2AF1.2	2003
42	D	2AF1.2	2005
43	C	2AF1.3	2004

Question Number	Correct Answer	Standard	Year of Test
44	<i>B</i>	2MG1.1	2006
45	<i>A</i>	2MG1.2	2004
46	<i>B</i>	2MG1.3	2004
47	<i>B</i>	2MG1.3	2006
48	<i>C</i>	2MG1.3	2006
49	<i>B</i>	2MG1.4	2003
50	<i>D</i>	2MG1.4	2005
51	<i>C</i>	2MG1.5	2005
52	<i>C</i>	2MG2.1	2003
53	<i>B</i>	2MG2.1	2003
54	<i>A</i>	2MG2.1	2006
55	<i>A</i>	2MG2.2	2004
56	<i>A</i>	2MG2.2	2006
57	<i>D</i>	2MG2.2	2006
58	<i>D</i>	2PS1.1	2005
59	<i>D</i>	2PS1.1	2006
60	<i>D</i>	2PS1.2	2003
61	<i>D</i>	2PS1.2	2006
62	<i>A</i>	2PS1.3	2005
63	<i>A</i>	2PS1.3	2006
64	<i>A</i>	2PS1.4	2004



basic education

Department:
Basic Education
REPUBLIC OF SOUTH AFRICA

ANNUAL NATIONAL ASSESSMENT

GRADE 2

MATHEMATICS

TERM 1: 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

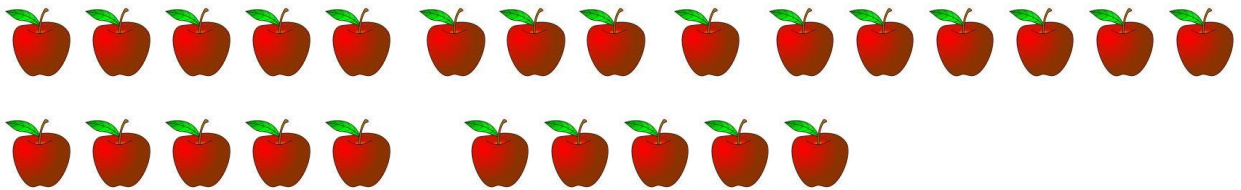
It is extremely critical that the curriculum must be covered in full in every class. The exemplars for each grade and subject do not represent the entire curriculum. They merely **sample** important knowledge and skills and only for work that covers terms 1, 2 and 3 of the school year. The pacing of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

NUMBERS, OPERATIONS AND RELATIONSHIPS

1. Look at the picture and answer the questions that follow.



- a. Count the apples and write the correct number symbol. _____
 - b. How many groups of five (5) apples are there _____
 - c. How many groups of ten (10) apples are there?

 - d. How many groups of two (2) apples are there?

2. Fill in the missing numbers.
20, _____, 22 _____, _____, 25

3. Complete the following number patterns.

a. _____ ; 16 ; 18 ; _____ ; _____ ; 24.

b. 22 ; _____ ; _____ ; 19 ; _____ ; 17.

4.



Pack the beans shown in the picture into 4 baskets so that there is the same number in each basket.

How many beans will you pack into each basket ?

5. Write down the next number in each sequence.

a. 5 ; 10 ; 15 ; _____

b. 4 ; 6 ; 8 ; _____

6. a. _____ ; 10 ; 11 ; 12

b. _____ ; 20 ; 21 ; 22

c. _____ ; 15 ; 20 ; 25

d. _____ ; 20 ; 22 ; 24

7. Write down the number name of each of the following number symbol

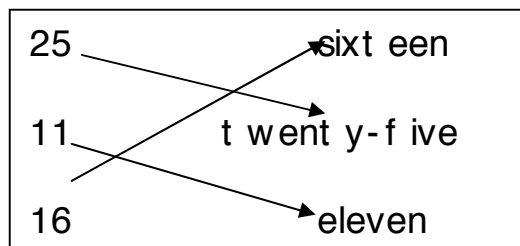
a. 13 _____

b. 20 _____

c. 23 _____

8. Draw arrows to match the number symbols with the number names.

You are given an example.



- a. 22 eight
- b. 18 t welve
- c. 8 t went y-t wo
- d. 12 eight een

9. Write the number symbols of the following number names.

a. twentyone _____

b. nine _____

c. thirteen _____

d. seven _____

9. Write the whole number that comes between the given number

a.	19		21
b.	23		25

11. Write the words 'is smaller than', 'is greater than' and 'is equal to' between the following pairs of numbers to make correct sentences.

a. 22 _____ 12

b. 12 _____ 12

c. 11 _____ 21

12. Write the numbers from the **smallest** to the **biggest** .

a. 9 25 7 6 13
 ---- ---- ---- ---- ----

b. 6 17 19 8 12
 ---- ---- ---- ---- ----

c. 22 20 12 18 24
 ---- ---- ---- ---- ----

13. Write the numbers from the **biggest** to the **smallest** .

a. 11 23 18 10 15
 ---- ---- ---- ---- ----

b. 15 20 5 25 10
 ---- ---- ---- ---- ----

c. 13 18 15 21 12
 ---- ---- ---- ---- ----

14. Write the value of each of the underlined digits.

a. 21 _____

b. 18 _____

15. a. What does the digit 2 represent in the number 24? _____
- b. What does the digit 4 represent in the number 24? _____
- c. 1 ten and 9 ones make the number _____.

16. Write the correct answer in the box by breaking down or building up the given number.

a. $22 = \square + 2$

b. $17 = 10 + \square$

17. Fill in the empty boxes using tens and units to complete the sum.

a. $13 = \square + \square$

b. $25 = \square + \square$

c. $5 = \square + \square$

18. Add the following numbers:

a. adding on from the bigger number

$$5 + 13 = \underline{\hspace{2cm}}$$

b. using the near doubles

$$6 + 5 = \underline{\hspace{2cm}}$$

c. filling up a ten

$$8 + 7 = \underline{\hspace{2cm}}$$

19. Double the following numbers.

a. 4 b. 9 c. 10

20. Double each of the following numbers by writing an addition sentence.

a. 6 : + =

b. 8 : + =

21. a. Which number is 10 more than 9 _____.
- b. Which number is 10 more than 10 _____.
- c. Which number is 10 more than 17 _____.
- d. Which number is 5 more than 11 _____.

PROBLEM-SOLVING

1. a. How much is 18 more than 11 _____.
- b. If you add 7 to a certain number the answer is 14. What is the other number? The other number is _____.
- c. Mary has 19 marbles. She has 5 fewer marbles than John. How many marbles does John have? _____.

2. a. Share 12 ice cream cones equally between 2 friends.



- b. If you share 11 pencils equally between Mary and

Anne, Mary will get _____pencils and Anne will get _____ pencils and ___ will remain

- c. How many legs do 4 horses have?

- d. Lisa planted 5 peach trees in 4 rows. How many peach trees did she plant altogether?..... .

CALCULATIONS INVOLVING MONEY

1. Two 5c coins have the same value as one _____ coin.

Two R10 notes have the same value as one _____ note.

The total of $10c + 10c + 10c$ is _____.

Complete: $R10 + R5 =$ _____.

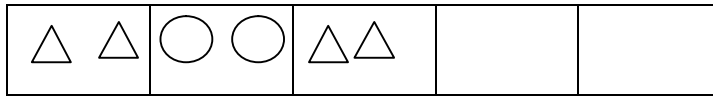
Complete the following table:

Price of article	Paid with	Change
40c	50c	
35c	40c	
R1	R2	

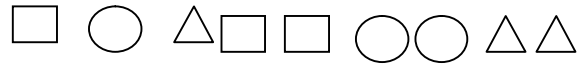
2. a. Suzy has 20c. Her mother gives her 30c. How much money does Suzy have now? Suzy has _____ cents.
- b. R1 shared equally between 2 girls means each girl gets _____.
- c. 40c shared equally between 4 means each girl gets _____.
- d. The price of 1 books is R2 . What will the price of 6 books be? _____.

PATTERNS, FUNCTIONS AND ALGEBRA

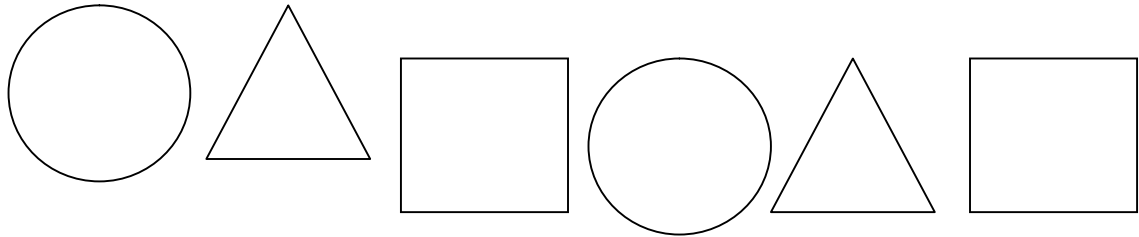
1. a. Draw the next shapes in the pattern.



b. Draw the next 3 diagrams in the pattern.



c. Copy the following pattern.



d. Draw the next shapes in the 'growing' pattern.



2. Complete the tables

a.

	1	2	3	4	5	6
*5	5			20		

b.

*	1	2	3	4	5	6
*2	2	4		28		

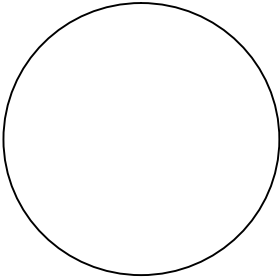
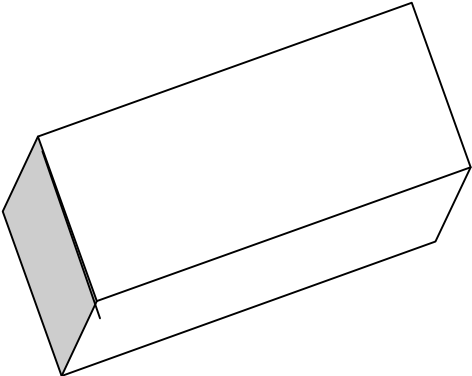
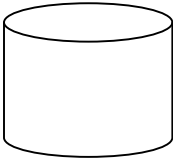
3. Write down the next 2 numbers in each pattern.

a. 20 ; 15 ; 10 ; _____ ; _____.

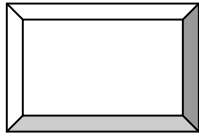
b. 18 ; 16 ; 14 ; _____ ; _____.

SPACE AND SHAPE

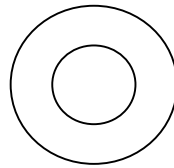
1. Draw a line between the picture of each article and its matching shape.



2. Draw a circle around the object that can slide.

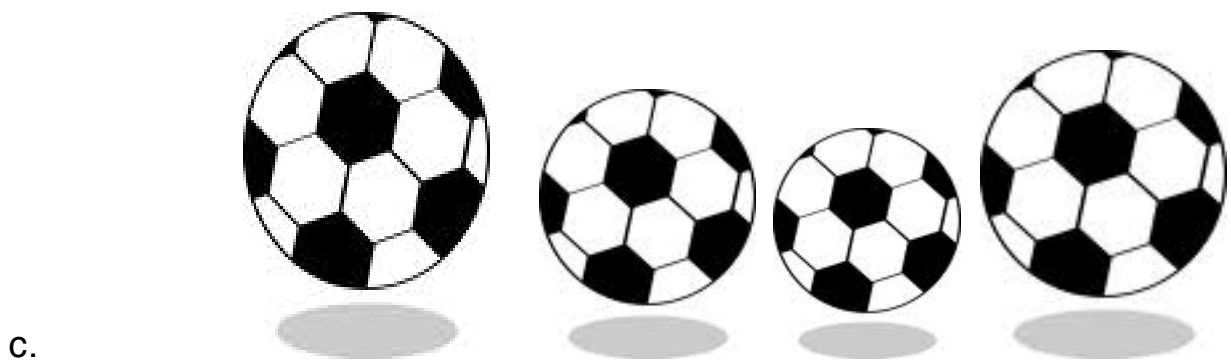
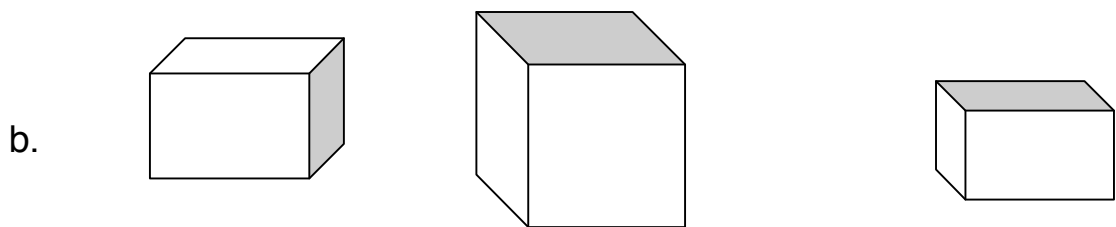
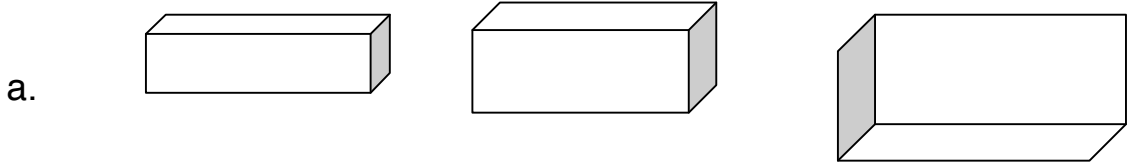


Picture



Wheel

3. In each of the following groups of 3-D objects, mark the largest object with a cross (X) and mark the smallest object with a tick (✓).

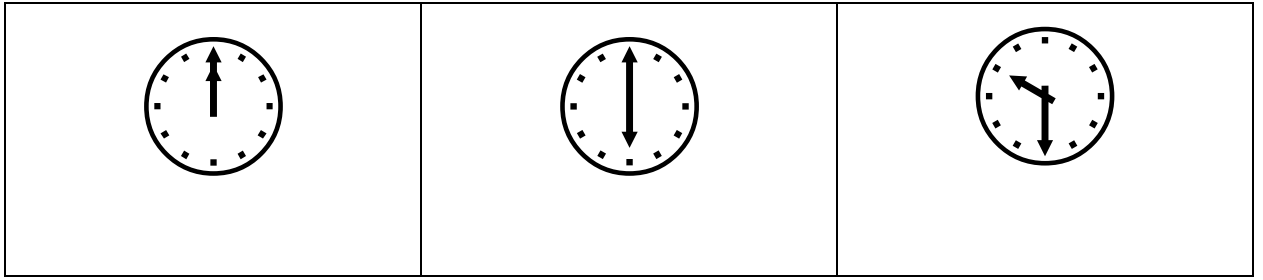


4.
 - a. How many of the 10 objects in question 3a, 3b and 3c have only flat faces? _____
 - b. How many of the 10 objects in question 3a, 3b and 3c have only round faces?
 - c. Can the objects in question 3(c) slide or roll?

MEASUREMENT (TIME AND LENGTH)

1.
 - a. There are _____ days in a week
 - b. The names of the days of the week are Sunday, _____, _____, _____, _____ and _____ Saturday
 - c. Monday, _____, Wednesday, _____.
 - d. _____, Thursday, _____, _____, Saturday.
2. How many days are there between
 - a. Monday and Friday? _____.
 - b. Sunday and Thursday _____.

3. Write down the correct time under each clock.



a. _____

b. _____

c. _____

4. Bongileft for school at 7 o'clock in the morning. She came back home at 3 o'clock in the afternoon. How many hours was she gone?

5. Look at the lengths of the 4 lines to see how long each of them is and then answer the questions without measuring the lines.

Line A _____

Line B _____

Line C _____

Line D _____

- a. Line _____ is longest .
- b. Line _____ is shortest and line _____.
- c. Line C is longer than line _____.
- d. Line A is shorter than line _____ but longer than line _____ and _____.
- e. Arrange the lines from the longest to the shortest by writing down the letters that represent them.
- f. Arrange the lines from the shortest to the longest by writing down the letters that represent them.

1. **DATA HANDLING**

Matome asked 18 boys in his class about their favourite TV programmes. He listed their answers by writing:

S for sport, N for news, D for drama and R for religion.

S	N	D	D	R	N	R	D	S
R	S	N	R	S	S	D	S	R

How many boys chose the following as their favourite TV programme:

- a. Sport _____
- b. Drama _____
- c. Religion _____
- d. News _____

Use the information in Question 1 to draw a pictograph, and then complete the sentences that follow.

Key: Use  to represent 1 boy.

FAVOURITE TV PROGRAMME

Number of boys				
		Sport	Drama	Religion
TV PROGRAMME				

2. a. Most of the boys chose _____.
- b. The least number of boys chose _____.
- c. The difference between the number of boys who chose sport and the number of boys who chose news is _____.



basic education

Department:
Basic Education
REPUBLIC OF SOUTH AFRICA

ANNUAL NATIONAL ASSESSMENT 2013

GRADE 2

MATHEMATICS EXEMPLAR QUESTIONS

This booklet consists of 22 pages, excluding the cover page.

GUIDELINES FOR THE USE OF ANA EXEMPLAR 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:

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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

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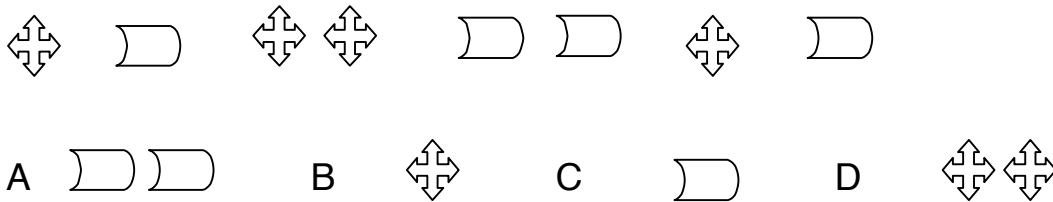
1.1 Complete the "repeating" pattern of shapes.



1.2 Draw the next shapes in the pattern.



1.3 Circle the letter of the correct shape that comes next in the pattern.

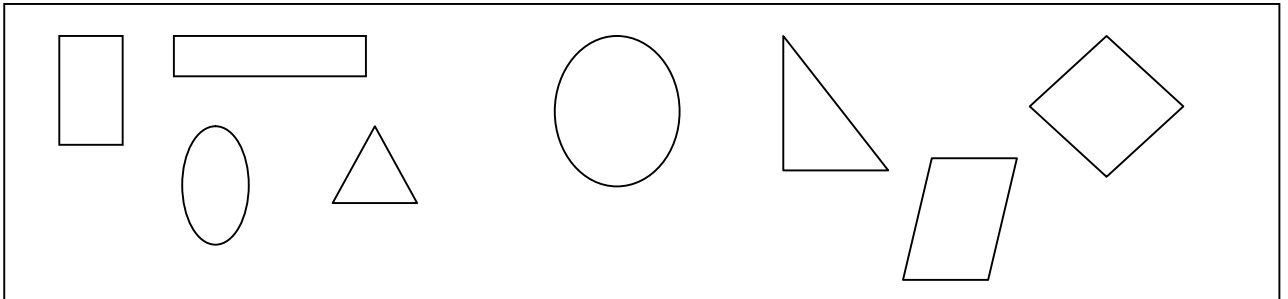


2.1 Draw a line to link the 3-D object name with the correct picture.

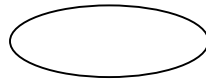
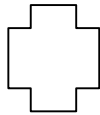
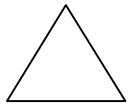


cube

2.2 Mark the shapes which only have straight sides with a “✓” and those with curved sides with a “x”.



2.3 Tick a shape which has only straight edges.



3.1 Write the number symbol for one hundred and sixty-nine.

3.2 Draw lines to match the number symbol with the correct number name.

3.2.1 49 eight een

3.2.2 55 sevent y-f our

3.2.3 63 f if t y f ive

3.2.4 74 f ort y-nine

3.2.5 18 sixt y t hr ee

3.3 Choose a number symbol from the box below and then write it down next to the correct number name.

101	100	110
-----	-----	-----

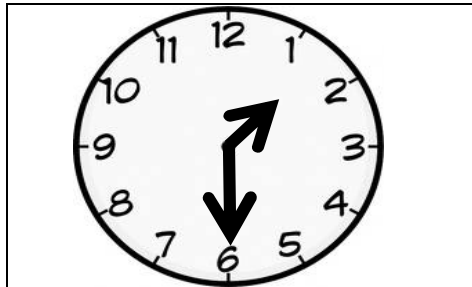
3.3.1 One hundred and one _____

3.3.2 One hundred _____

3.3.3 One hundred and ten _____

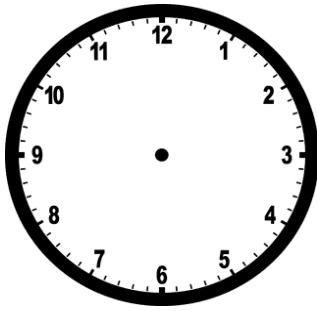
4. Write the number name for 47.

5.1 Write the time shown on the clock face below.

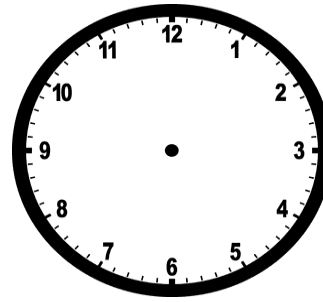


The time is _____.

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



6 o'clock

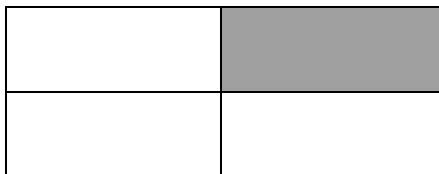


Half past 4

- 5.3 Bongie left for school at 7 o'clock in the morning. She returned home at 3 o'clock. How many hours was she away from home?

She was _____ hours away from home.

- 6.1 Circle the letter of the correct answer.
What fraction of the shape is shaded in?



- A 1 third
- B 1 half
- C 1 quarter
- D 1 fifth

6.2 Answer the following question.

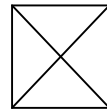


The above shape has been divided into _____ equal parts and a _____ has been shaded.

6.3 Colour the indicated fractional part of each figure.



one third



4 quarters

7.1 Write the given numbers from the greatest to the smallest :

131

129

152

117

162

7.2 Arrange the numbers from the smallest to the greatest .

100

110

95

90

105

7.2.1

51

15

105

115

5

7.2.2

7.3 Circle the letter of the correct answer.
Which numbers are arranged from the greatest to the smallest ?

A 64 12 40 21 80

B 80 64 40 21 12

C 21 40 80 64 12

D 80 64 21 12 40

8.1 $69 - 41 =$

A 28

B 82

C 72

D 78

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

8.2.1 $27 + 2 + \underline{\hspace{2cm}} + \underline{\hspace{2cm}} = 33$

8.2.2 $31 + \underline{\hspace{2cm}} + \underline{\hspace{2cm}} + \underline{\hspace{2cm}} = 43$

8.2.3 $16 + 10 \underline{\hspace{2cm}} + \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

8.2.4 $19 + 6 + \underline{\hspace{2cm}} + \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

8.3 If $52 - 9 = 43$ then $52 - 43 =$ _____

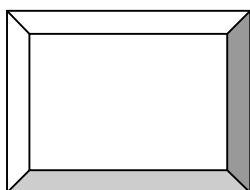
9.1 Look at the picture and then tick "✓" the correct answer in the block below.



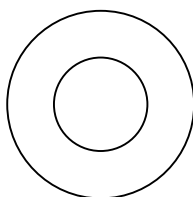
The tyre can

slide.	roll.
--------	-------

9.2 Circle the object that can slide.



picture

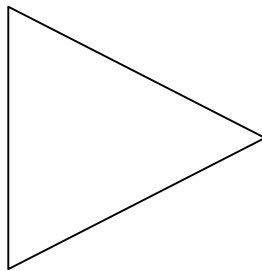


wheel

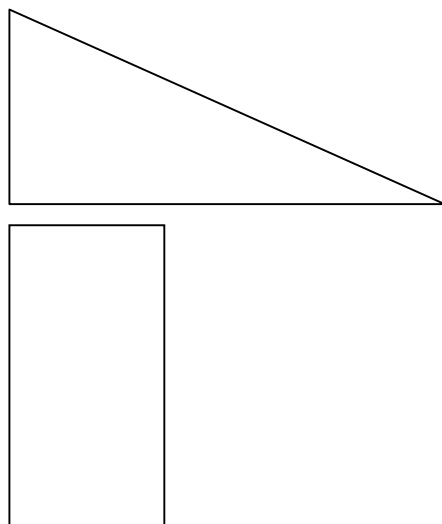
9.3 Draw any object that can roll and an object that can slide.

Object that can roll.	Object that can slide.

10.1 Draw a line of symmetry in the given shape.

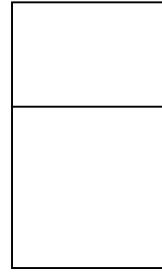
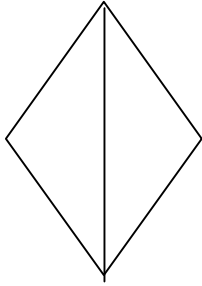
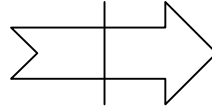
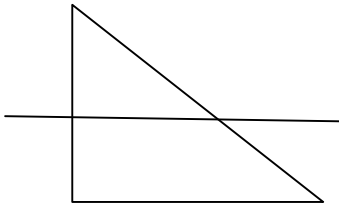


10.2 Draw the other part of the figure to make a symmetrical picture.



10.3

Mark the shape with the correct line of symmetry with a “✓”.



11.1 Complete each of the following number patterns:

11.1.1 66; 63; 60; _____; _____; _____.

11.1.2 141; 145; 149; _____; _____; _____.

11.2 Fill in the missing numbers.

11.2.1 162; _____; _____; 168, 170; _____.

11.2.2 152; 155; _____; _____; 164; _____.

12.1 The value of the underlined digit in 81 is ___

12.2 In the number 73

12.2.1 the value of the digit 7 is _____

12.2.2 the value of the digit 3 is ____

13.1 Double and halve 29.

13.1.1 Double 29 = _____

13.1.2 Half of 29 = _____

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--

13.2.1 Halve the given number .

Number	Number halved
24	
16	
12	

13.2.2 Double the given number .

Number	Number doubled
18	
10	
14	

13.3 Double each of the following numbers by writing an addition number sentence.

13.3.1 **6:** = +

13.3.2 **8:** = +

14.1 Fill in “is smaller than” or “is greater than” between the numbers to make a correct sentence.

12 _____ 21

14.2 Fill in =, >, < between each pair of numbers to make the statement correct.

14.2.1 122 _____ 102

14.2.2 105 _____ 105

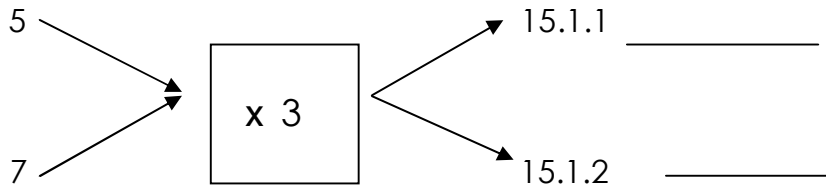
14.2.3 101 _____ 110

14.3 Circle the correct symbol to make the statement correct.

14.3.1 $5 + 5 > = < 23$

14.3.2 $47 > = < 74$

15.1 Complete the flow diagram:



15.2 Fill in the missing numbers

cars	1	3	5		9
wheels	4		20	24	

15.3 Write the correct answer.

15.3.1 $2 \times 5 =$

15.3.2 $10 \times 4 =$

16.1 Fill in the correct operation sign to make the number sentence true.

34 10 = 44

16.2 Circle the correct operation sign to make the number sentence true.

23 10 = 13

17.1 Circle the heaviest item.

		
5kg	1kg	2kg

17.2 Arrange the given items from the lightest to the heaviest.

		
5kg	1kg	2kg

Item	Weight

17.3 Mark the block with the correct answer with a "X".

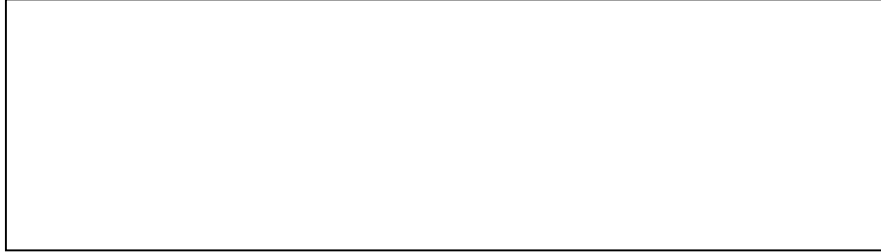
A brick is

heavier

lighter

 than my pencil.

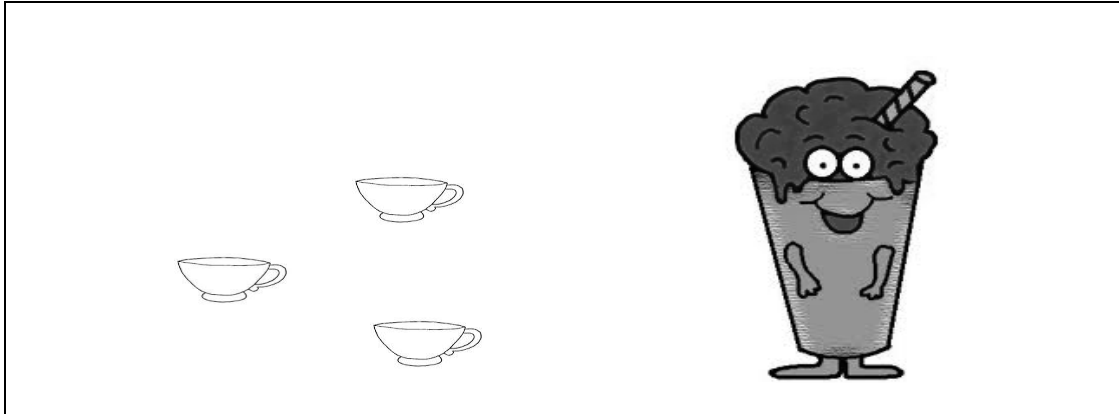
- 18.1 Bongani and his friends must pack 36 apples in packs of 4 in a packet . How many packets can be filled and how many apples will be left ?



- 18.2 Teacher has 38 pencils and she shares it equally between 4 learners. How many pencils did each learner get and how many pencils remain.



19.1 Three cups of milk are needed to make 1 milkshake. How many cups of milk are needed to make 4 milkshakes?





4 milkshakes will need _____ cups of milk.

19.2 Mot her bakes 4 cakes and she uses t hr ee cups of f lour per cake. How many cups of f lour did she use t o bake t he cakes?



20.1 Read the price list below and answer the question that follows.

	
R12,00	R4,00

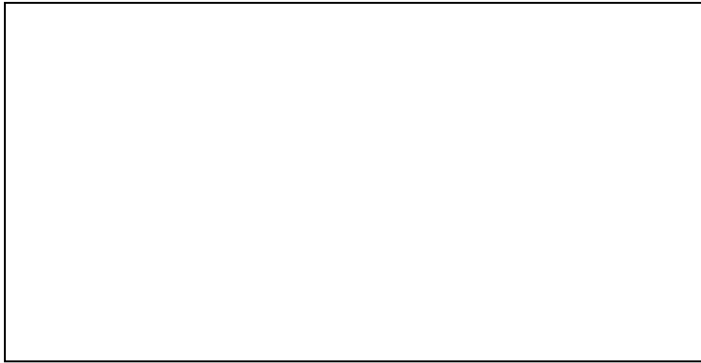
Susan buys a ball and an ice cream. She pays with a R20,00 banknote. How much change should she get ?

R_____

20.2 How many ice creams can Nomsa buy with a R20?

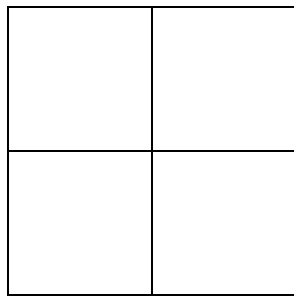
Nomsa can buy _____ ice creams.

20.3 Thandi wants to buy 2 balls but she only has a R20. How much money does she need for the balls?



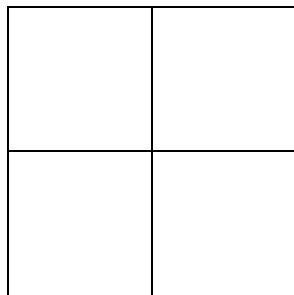
Thandi needs R_____ and she is R_____ short .

21.1 How many squares are there in the diagram below?



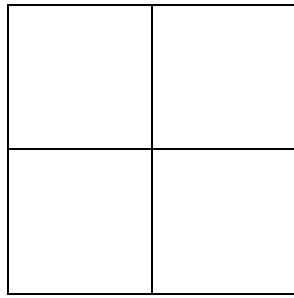
Number of squares = _____

21.2 Count the squares in the diagram and write the number name.



The number name is _____

21.3 Look at the diagram below and complete the sentence.



There are _____ small squares and _____ big square.

22.1 How many legs do 9 cows have?



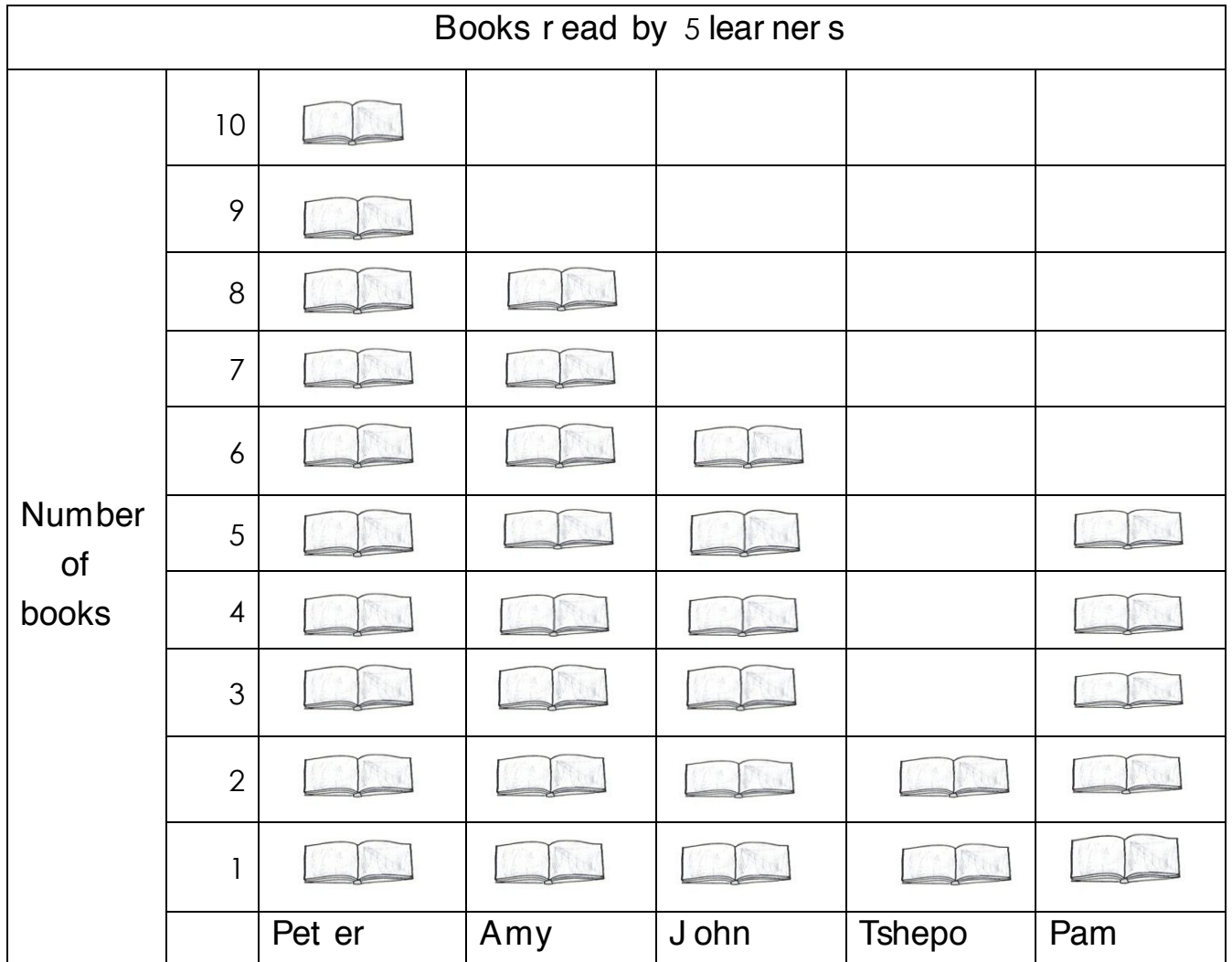
Nine cows have _____ legs.

22.2 There are 4 boxes of crayons in our classroom. Each box has 9 crayons. How many crayons are there altogether?



There are _____ crayons.

23.1 Use the graph to answer the questions that follow.



23.1.1 Who read the most books? _____

23.1.2 How many books did Amy and Pam read altogether?

23.2.1 Mat ome asks 18 boys in his class about t heir f avour it e TV progr am. He r ecor ds t he inf or mat ion as f ollow:

S f or sport , N f or news, D f or drama and R f or religion.

S	N	D	D	R	N	R	D	S
R	S	N	R	S	S	D	S	R

How many boys choose t he f ollowing TV progr ams as t heir f avour it e?

23.2.1 Sport ? _____

23.2.2 Drama? _____

23.2.3 Religion? _____

23.2.4 News? _____

23.2.5 Use the information above and draw a pictograph.

Key: Use (☺) to represent 1 boy.

FAVOURITE TV PROGRAMS

Number of boys				
	Sport	Drama	Religion	News
	TV-PROGRAM			

Assessment For The California Mathematics Standards Grade 2

Introduction: Summary of Goals

GRADE TWO

By the end of grade two, students understand place value and number relationships in addition and subtraction and they use simple concepts of multiplication. They measure quantities with appropriate units. They classify shapes and see relationships among them by paying attention to their geometric attributes. They collect and analyze data and verify the answers.

Assessment For The California Mathematics Standards Grade 2

Number Sense

NS 1.1

a. Circle the number: three hundred four

340

34

3004

304

b. Circle the number: two hundred eleven

121

221

211

212

c. Circle the number: five hundred fourteen

540

514

541

515

d. Write these numbers:

1. **nine hundred two**

2. **six hundred twelve**

3. **three hundred thirty**

4. **seven hundred eighty-four**

NS 1.2

Write the expanded notation for these numbers:

a. **564** = _____ + _____ + _____

b. **720** = _____ + _____ + _____

c. **902** = _____ + _____ + _____

Assessment For The California Mathematics Standards Grade 2

NS 1.3

Fill in the missing symbol $>$ or $<$ or $=$

a. **207** ____ **92** d. **265** ____ **843**

b. **139** ____ **257** e. **412** ____ **261**

c. **347** ____ **300 + 40 + 7**

NS 2.1

a. Make two addition and two subtraction number sentences with these numbers:

4 **6** **10** _____ + _____ = _____
_____ + _____ = _____
_____ - _____ = _____
_____ - _____ = _____

b. Here is how James worked a subtraction problem. Use addition to check to see if he worked the problem correctly. You will need to write the addition problem.

$$\begin{array}{r} 26 \\ - 12 \\ \hline 15 \end{array} \qquad + \underline{\hspace{2cm}}$$

Assessment For The California Mathematics Standards Grade 2

NS 2.2

a. 34 b. 343 c. 457 d. 607
+ 23 + 265 + 324 + 299

e. 34 f. 748 g. 543 h. 807
- 23 - 426 - 178 - 695

NS 2.3

Solve these problems in your head and write the answers.

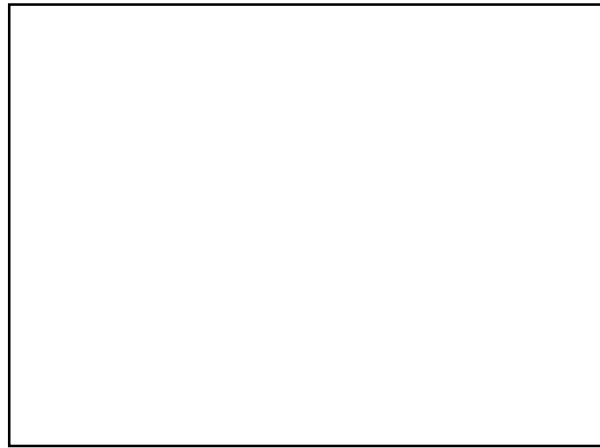
a. $50 + 30 =$ _____ d. $50 + 40 =$ _____
b. $80 - 20 =$ _____ e. $60 + 5 =$ _____
c. $32 + 4 =$ _____ f. $70 - 1 =$ _____

Assessment For The California Mathematics Standards

Grade 2

NS 3.1

- a. 1. Draw a picture of a classroom that has 5 desks across the front of the room and 4 desks in each row.



front

2. How many chairs are in the classroom? _____

- b. Figure out and write the numbers you say when you count by 4s.

4 8 _____

Assessment For The California Mathematics Standards

Grade 2

NS 3.2

Molly had 20 pieces of candy. She gave two pieces to her sister.

a. How many did she have left? _____

b. If she gave away 2 pieces each to 4 more people, how many pieces would she have left? _____

NS 3.3

Write the answers:

a. **5 × 3 = _____** b. **2 × 7 = _____** c. **5 × 8 = _____**

d. **10 × 6 = _____** e. **2 × 8 = _____** f. **10 × 4 = _____**

Assessment For The California Mathematics Standards

Grade 2

NS 4.1

Fill in the sign \gt or \lt

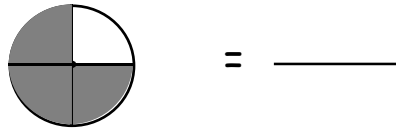
a. $\frac{1}{4}$ $\frac{1}{8}$

b. $\frac{1}{9}$ $\frac{1}{7}$

Assessment For The California Mathematics Standards Grade 2

NS 4.2

a. Write the fraction for the shaded area of this picture:



b. How many faces out of the group are smiling? Write a fraction to show this.



NS 4.3

a. Fill in missing numeral

$$1 = \frac{\quad}{4} \qquad \frac{5}{\quad} = 1$$

b. If a pizza is divided into thirds, how many pieces make one whole pizza? _____

NS 5.1

Lee has a bag of nickels and dimes.

What is a way that Lee could pay the exact amount for a box of pencils that costs 35 cents?

Assessment For The California Mathematics Standards

Grade 2

NS 5.2

a. Using a dollar sign (\$) and a decimal point:

1. Write 2 dollars and 57 cents: _____

2. Write 9 dollars and 9 cents: _____

3. Write 32 cents: _____

b. Write \$.32 a different way: _____

NS 6.1

About how long is a pencil? Circle the best answer.

5 feet

5 inches

5 yards

Assessment For The California Mathematics Standards

Grade 2

Algebra and Functions

AF 1.1

What is the easiest way to find $27 + 69 + 1$? _____

- A) Add 27 and 1 first, then add 69 to the sum.
- B) Add 69 and 1 first, then add 27 to the sum.
- C) Add 69 and 27 first, then add 1 to the sum.
- D) I don't know

AF 1.2

a. Three classes at your school will see a play together.

Room A has **18** students.

Room B has **34** students.

Room C has **19** students.

Room D has **29** students.

Write the number sentence you would use to find the total number of chairs needed if rooms A, B, and C go to the play.

b. Jan is 12 years old. Her sister is 5 years younger than Jan. How old is Jan's sister? Write a number sentence that will give the answer to the problem.

Assessment For The California Mathematics Standards

Grade 2

AF 1.3

This table shows how some children get to school.

	Take Bus	Walk to School
Boys	35	22
Girls	14	17

- a. How many children walk to school? _____
- b. How many more boys walk to school than girls? _____
- c. Are there more boys or girls on the bus? _____

Assessment For The California Mathematics Standards Grade 2

Measurement and Geometry

MG 1.1

Below is a picture of a house and a stick. About how many sticks wide is the picture? _____

- A. 3 sticks B. 4 sticks C. 6 sticks D. 9 sticks



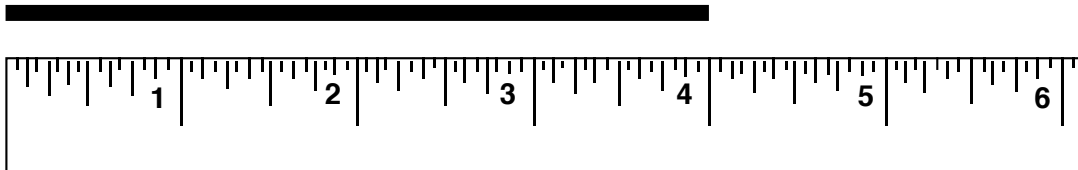
MG 1.2

Measure the length of your desk with a new crayon and with a new pencil. Which is greater, the number of crayon units or the number of pencil units?

Assessment For The California Mathematics Standards Grade 2

MG 1.3

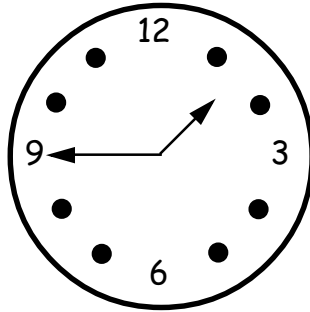
About how many inches long is the line?



Assessment For The California Mathematics Standards Grade 2

MG 1.4

a. What time is it on this clock? _____



b. 1. How many minutes in one hour? _____

2. How many days in one week? _____

c. Circle the greater amount of time

a. **3 weeks** or **19 days**

b. **27 days** or **4 weeks**

c. **85 seconds** or **1 minute**

d. **1 day** or **20 hours**

Assessment For The California Mathematics Standards Grade 2

MG 1.5

Anna started work at 10:00 a.m. It took her 3 hours to do her work. What time did Anna finish her work?

MG 2.1

a. How many sides does a triangle have?

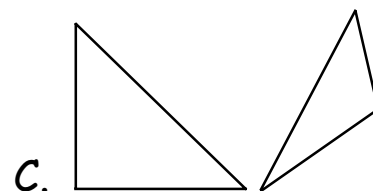
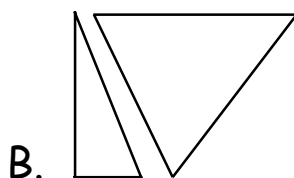
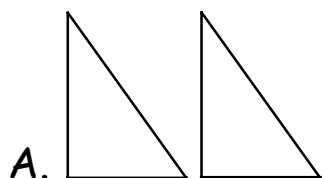
b. How many vertices does a rectangle have?

c. How many faces on a cube? _____

Assessment For The California Mathematics Standards Grade 2

Measurement and Geometry

MG 2.2



Which two triangles can be put together to form a rectangle? _____

Assessment For The California Mathematics Standards Grade 2

Statistics, Data Analysis, and Probability

S 1.1

Here is a table to record the number of students whose favorite sport is one of the five below:

Favorite Sport	Running	Basketball	Swimming	Soccer	Baseball
Number of Students					

Ten students gave answers. Juan, Bob, and Judy like running the most. Mu-lan and Carlos like swimming the most. Angel and Tom like soccer the most. Julia likes baseball the most. Bobby and Jack like basketball the most. What number should be written below "Swimming"?

- A. 0
- B. 1
- C. 2
- D. 3
- E. I don't know

Assessment For The California Mathematics Standards

Grade 2

S 1.2

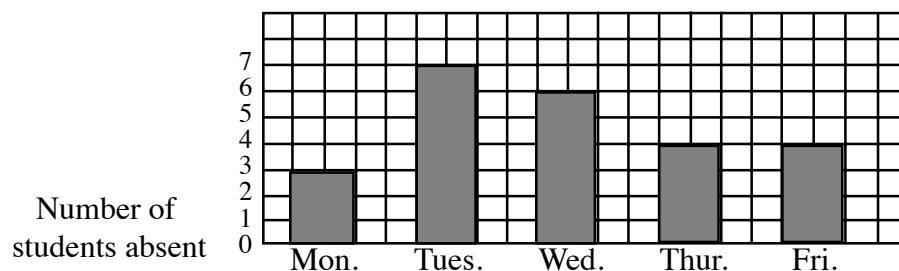
This tally shows how many students were absent this week.

Students Absent this Week

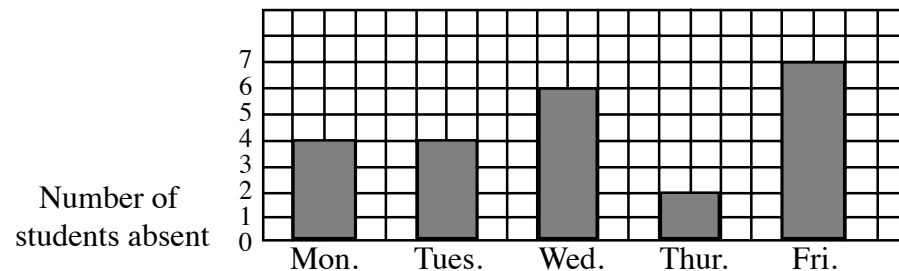
Monday	
Tuesday	
Wednesday	
Thursday	
Friday	

Which bar graph shows the same data? _____

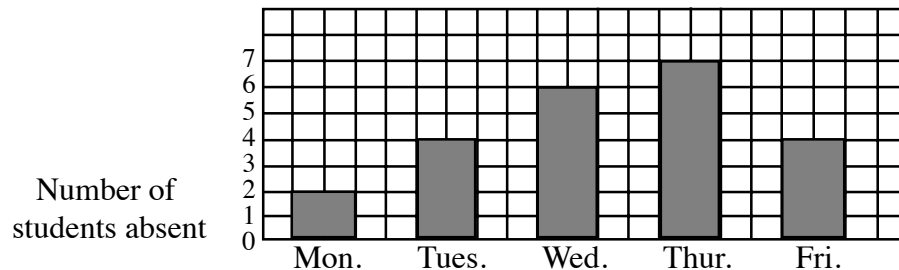
A.



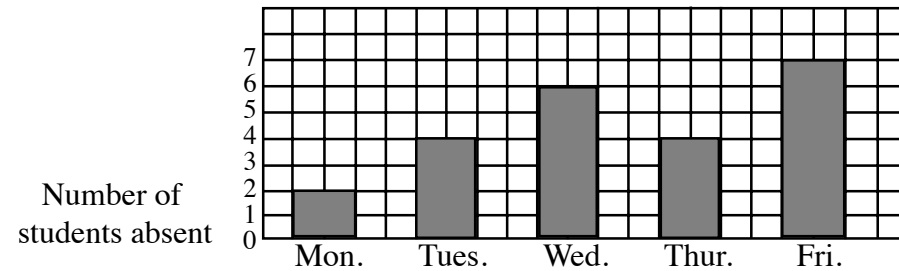
B.



C.



D.



Assessment For The California Mathematics Standards

Grade 2

S 1.3

- a. Miguel had a party. Eight children were at the party. If each one got two balloons, how many balloons did the children have altogether?

- b. What will the missing numbers be if the numbers increase by the same amount?

1, 4, __, 10, __, 16

Assessment For The California Mathematics Standards

Grade 2

S 1.3

c. Here are the scores that children received on a test.

90 - Jerry, Sam, Alicia, Ramon, Teresa

80 - Alexander, Charlene, Susan, Thomas, Sandra, Teresa

65 - Arthur, Betsy

50 - David

1. What score did the most children earn? _____
2. What was the highest score? _____
3. What was the lowest score? _____