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| GDE LOGO latest |
| ANA REVISION PROGRAMME 2014 |
| GRADE 5 |
|  |
| **EXAMPLAR QUESTIONS** |
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**ANNUAL NATIONAL ASSESSMENT 2013**

**ASSESSMENT GUIDELINES**

**MATHEMATICS**

**GRADE 5**

**INTRODUCTION**

The 2013 cycle of Annual National Assessment (ANA 2013) will be administered in all public and designated1 independent schools from 10 to 13 September 2013. During this period all learners in Grades 4-6 will write nationally set tests in Mathematics. The results will be used to report progress related to achieving the goals set in the *Action Plan 2014, Towards* *Schooling 2025*.

The ANA tests will be written during the third school term and, therefore, the Department of Basic Education (DBE) has developed Assessment Guideline documents for each grade and subject (Mathematics) outlining the minimum curriculum content that must be covered by all learners prior to the writing of the test. ***The Assessment Guidelines define the scope of work that will be covered in the test for each grade and subject.***

**INTERMEDIATE PHASE**

In Grades 4-6, the tests will cover work that is prescribed for the first three-quarters of the school year. The Assessment Guidelines are arranged in three columns: Content Area; Concepts and Skills; and Content to be assessed. It is important to note that the ANA 2013 Assessment Guidelines do not imply that the delimited scope is all that must be taught and learnt during the school year. Instead, the Assessment Guidelines provide the minimum curriculum requirements that must be covered by the end of the third school quarter.

Teachers are expected to use these Assessment Guidelines together with the other resources for their teaching and assessment programmes.

To support school-based assessments and also ensure that learners gain the necessary confidence to participate with success in external assessments, exemplar test questions were developed that teachers can use in Mathematics lessons. The exemplar test questions were developed based on the curriculum that covers terms 1, 2 and 3 of the school year. The exemplars, which include the ANA previous question papers, supplement the school-based assessment that learners must undergo on a continuous basis and does not replace the school based assessment. The exemplars are designed to illustrate different techniques or styles of assessing the same skills and/or knowledge. Exposure to a wide variety of questioning techniques or styles gives learners the necessary confidence to respond to different test items. 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. It is important to ensure that learners eventually get sufficient practice in responding to full tests of the type of the ANA model test.

**How to use the exemplars**

While the exemplars for a grade and a learning area 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 test questions, or a manageable group of questions, can be used at different stages of the teaching and learning process as follows:

* At the beginning of a lesson as a diagnostic test to identify learner strengths and weaknesses.
* 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.
* 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).
* At all stages to expose learners to different techniques of assessing or questioning.

**CONTENT AREA: NUMBERS, OPERATIONS & RELATIONSHIPS**

**Counting forward and backwards in whole numbers:**

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| **Example**  4 786; 4 876; **4 976;** 5 076  Add 100 to get the next number |

1. Fill in the missing number below:

4 500; 4 625; 4750; 4875; \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

2. Fill in the missing number:

4 210; 4 207; 4204; \_\_\_\_\_\_\_\_\_\_\_\_; 4198

3. Fill in the numbers represented by A and B on the number line.

4. Arrange the following numbers from smallest to biggest:

36 589 , 35 698 , 38 569 , 39 958

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

5. Arrange the following numbers in ascending order:

465 879; 456 789; 465 789; 456 879

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

6. Which number sequence is arranged in descending order?

a. 243 657 ; 234 567 ; 243 567 ; 234 657

b. 243 657 ; 243 567 ; 234 657 ; 234 567

c. 234 567 ; 234 657 ; 243 567 ; 243 657

d. 234 657 ; 243 567 ; 234 567 ; 243 657

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**Recognise and represent whole numbers to at least 6 digits:**

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| **Example**  Which number is represented by:  2 000 + 4 + 70 + 300 = **2 374** |

1. Which number is represented by:

40 000 + 2 000 + 5 + 60 + 700?

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

2. Shade the number in the frame that represents:

Six hundred and twenty three thousand nine hundred and two



3. Write each of the following numbers in words.

a. 42 749 = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

b. 348 706 = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

4. Three hundred and forty eight thousand seven hundred and thirty

six written using digits is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

5. Write down the biggest number and the smallest number that can be made using the digits

**5, 9, 6 , 1 , 7 , 2**. Use each digit only once.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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**Place Value to at least 6-digits numbers:**

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Example**  Place the digits under the correct place value:  26 854   |  |  |  |  |  | | --- | --- | --- | --- | --- | | Ten Thousand | Thousand | Hundred | Tens | Unit | | 2 | 6 | 8 | 5 | 4 | |

1. Write down the value of the underlined digit:

1**6**8 234

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

2. For each number write the value of the underlined digit:

2.1. 353 05**3** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

2.2 **3**53 053 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

3. What is the value of the underlined digit in the number 97 **4**06?

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

|  |  |
| --- | --- |
| 4. The place value of the underlined digit in 678 329 is |  |

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

**Rounding of numbers to the nearest 5, 10, 100 or 1000**

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| **Example**  Round off 127 to the nearest 10  100 110 120 125 130 140 150 |

1. Write your answers in the spaces provided.

1. Round off 5 683 to the nearest 100. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. Round off 5 683 to the nearest 5. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

2. Complete:

1. 1 311 rounded off to the nearest 100 = \_\_\_\_\_\_\_\_\_\_\_\_\_
2. 2 347 rounded off to the nearest 5 = \_\_\_\_\_\_\_\_\_\_\_\_\_

3. Use the number line to answer the following questions.



1. Is A closer to 120 or 125?

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

b. 126 rounded off to the nearest 10 ≈ \_\_\_\_\_\_\_\_\_\_\_\_.

4. Answer the following questions.

a. 74 rounded off to the nearest 10 ≈ \_\_\_\_\_\_\_

b. 3 097 rounded off to the nearest 1 000 ≈ \_\_\_\_\_\_\_

**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Addition and Subtraction of whole numbers to at least 5-digits:**

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| **Example**  43 620 + 12 593 + 234  = (40 000 + 3 000 + 600 + 20) + (10 000 + 2 000 + 500 + 90 + 3) +(200 + 30 + 4)  = (40 000 + 10 000) + (3 000 + 2 000) + (600 + 500 + 200) + (20 + 90 + 30) + (3 + 4)  = 50 000 + 5 000 + 1 300 + 140 + 7  = 56 447  43 620  12 593  + 234  56 447  (400 – 200) + (160 – 90) + (7 – 3) = 274 or  (500 – 200)  (300 + 60) – 90  (270 + 7) – 3 = 274  567  –293  274 |

1. Add: 1 4 7

+ 6 8 9

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

2. Add the following:

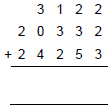
34 567 + 2 322 = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

3. Calculate: 1 470 + 2 312

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_



4. Calculate:

5. Fill in the missing number.

3 576 + \_\_\_\_\_\_\_\_\_\_ = 6 892

6. Calculate 1 673 + 374.\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

7. Find the sum of 3624 and 2304.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

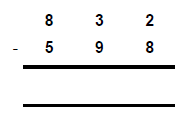
\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

****8. Hayden uses a calculator to add:75 023 + 26 156 = **95 179**

To check, he works out the sum himself like this:

75 000 + 23 + 156 + \_\_\_\_\_\_\_\_\_\_ **= 95 179**

Write in the number that Hayden left out.

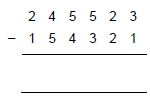
9. Subtract:

10. Calculate: 1 352 - 1 021

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

11. Calculate:

12. Complete: 5 720 is 100 less than \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

13. 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?

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

14. Sandile sells beads at the craft market. The table shows how many beads she sold during a

5-day festival.



1. How many beads did she sell altogether on Monday, Tuesday and Wednesday?

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

b. How many more beads did she sell on Friday than on Wednesday?

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

15. If 23 158 people live in Mogale City and 25 249 people live in Sun Valley, how many more

people live in Sun Valley than in Mogale City?

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16. 23 458 people live in Lwandle and 25 249 people live in Sun City.

How many more people live in Sun City than in Lwandle?

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**Multiplication of 3-digit by 2-digit numbers:**

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| **Example**  24  20 + 24  3 = 480 + 72 = 552 or 24  25 – 24  2 = 600 – 48 = 552  24  × 23  72  + 480  \_\_ 552  **Distributive method**      \_25  220  + 880  1 100  89  6  54 (9  6)  480 (80  6)  534  **Factor method**  47 **×** 12 = 47 **×** 2 **×** 6  = (47 **×** 2) **×** 2 **×** 3  = (94 **×** 2) **×** 3  = 188 **×** 3  = (100 + 80 + 8) **×** 3  = 300 + 240 + 24  = 564 |

1. Multiply: 356 **×** 24

\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_

2. Calculate: 463 **×** 24

\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_

3. Complete:

2(5+3) = (2x\_\_\_\_) + (2 x \_\_\_\_)

= \_\_\_\_\_\_\_ + \_\_\_\_\_\_\_

= 16

4. Complete:

562 x 5

= (500 +\_\_+ 2) x 5

= (500 x\_\_\_) + (60 x \_\_\_) + (\_\_\_ x 2)

=\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

= \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

5. Use the distributive method to calculate 373 x 26.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

6. Use the factor method to calculate 237 x 42.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

7. Answer the following questions by calculating.

1. 15 x 200 = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ b. 26 x 400 = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

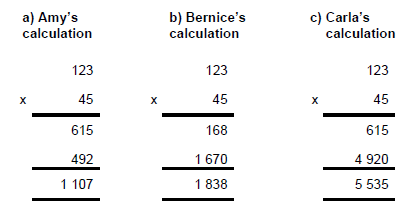
c.\_\_\_\_\_\_\_\_\_\_\_ x 3 000 =15 000 d. 487 x 62 = \_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

8. Grade 5 learners had to multiply 123 and 45. Below are the calculations done by three

learners in the class.



Which learner did the correct calculation? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Division of 3-digit by 2-digit numbers:**

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| **Example**    48  8  0  8  48816  = (40016) + (8016) + (816)  = 25 + 5 +  =  Factor method  48816  = 488 2 ÷8  = (488 2) ÷ 2 ÷ 4  = (244 2) ÷ 4  = (122 4)  = |

1. Divide: 735 ÷ 21 = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

2. Calculate : 6160 ÷ 35

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

3. Use the factor method to calculate 728 ÷ 28.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

4. Calculate 289 ÷ 17.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

5. Calculate the quotient.



\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_

6. Use 2 different methods to divide 805 by 35.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

7. An orange farmer packs 352 oranges into the bags. If he fills 11 bags, how much oranges are

in each bag? Use the long division method.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

8. Mr Ntuli has bought 9 goats. He paid R 2 835 altogether. How much did he pay for each

goat? Use the long division method to find an answer.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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**Multiples and Factors of 2-digit whole numbers:**

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| **Example**  List all the multiples of 7 up to 100.  7 ; 14 ; 21 ; 28 ; 35 ; 42 ; 49 ; 56 ; 63 ; 70 ; 77 ; 84 ; 91 ; 98  Intervals of 7. Intervals are constant.  List the factors of 20:  1;2;4;5;10;20  All numbers can be divided into 20 without a remainder. |

1. Write down the multiples of three from 474 to 483.

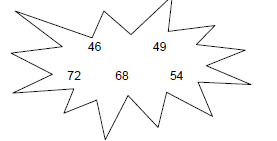
\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

2. Write down the multiples of 5 between 718 and 733.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

3. Which of the following numbers in the frame are multiples of 3?

Circle the correct answer



4. Circle the multiples of 8 shown on the number line.



5. Write down all the factors of 24.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

6. Which of the numbers 1, 6, 9, 7, 8 is a factor of 21?

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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**Properties of 0 and 1**

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| **Example**  53 + 0 = **53 23 x 1** **= 23** |

1. Calculate:

a. 23 + 0 = \_\_\_\_\_\_\_\_\_\_\_\_ b. 23 – 0 = \_\_\_\_\_\_\_\_\_\_\_

c. 25 625 – 25625 = \_\_\_\_\_\_\_\_\_\_ d. 1298 – 0 = \_\_\_\_\_\_\_\_\_\_\_

2 a. What happens to a number when zero is added to it?

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

b. What happens to a number when you subtract a number from itself?

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

c. What happens to a number when you subtract zero from it?

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

3. Calculate:

a. 1 x 1 x 1 = \_\_\_\_\_\_\_\_\_\_\_\_\_ b. 3 x 0 x 3 = \_\_\_\_\_\_\_\_\_\_\_\_

4 a. What happens to a number when you multiply it by 1?

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

b. What is the product of a number and zero?

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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**Properties of numbers:**

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| **Example**  5 x (3 x 2) = (5 x 3) x (\_**2\_**)  **30 = 30** |

1. State whether the statements are TRUE OR FALSE

a. 7 x 3 + 6 = 3 + 7 x 6 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

b. 3 x (5 +6) = (3 x 5) + (3 x 6) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

c. 51 + 22 = 22 + 51 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

d. 24 ÷ 5 = 5 ÷ 24 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

e. 61 x 0 = 610 x 0 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

2. Complete:

a. 9 + 2 = 2 + \_\_\_

b. 7 + 1 = \_\_\_ + 7

c. \_\_\_ x 4 = 4 x 6

d. 8 x \_\_\_ = 5 x \_\_\_\_

3. Complete:

a. 2 x (3 x 4) = (2 x 3) x (\_\_\_)

b. 1 + ( 3 + 5) = (1 + 3) + (\_\_\_)

c. 6 x (2 + 4) = (6 x 2) + ( \_\_\_\_\_\_\_\_)

4. Is 36 + 24 equal to 24 + 36? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

5. If 17 x 3 = 51 what does 3 x 17 equal? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

6. Is 9÷3 equal to 3 ÷9? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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**RATE AND RATIO**

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| **Example**  Ratio:  In a bag there is 4 oranges, 2 bananas, 6 apples and 2 plums.  The ratio of the number of oranges to apples is **4:6** |

1. Draw a circle around the letter of the correct answer.

In a jug there is 1 part of juice and 3 parts of water.

Which ratio shows this?

a. 3 : 1 b. 6 : 2 c. 2 : 4 d. 1 : 3

2. Nobese has 3 black, 4 red, 2 blue and 3 green balls in a bag.

1. The ratio of the number of red balls to green balls = \_\_\_\_\_\_\_\_\_\_\_.
2. What is the ratio of blue balls to black balls? = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

3. In a box of pens there are 5 red pens, 7 black pens and 10 blue pens.

Write down the ratio of the following:

1. Black pens to red pens: \_\_\_\_\_\_\_\_\_\_\_\_
2. Red pens to blue pens: \_\_\_\_\_\_\_\_\_\_\_\_
3. The sum of black and blue pens to red pens: \_\_\_\_\_\_\_\_\_\_\_
4. The difference between blue pens and black pens to red pens: \_\_\_\_\_\_\_\_\_\_\_

4. In a parking area, the ratio of white cars to blue cars is 1:3. If there are 40 white cars, how many cars altogether are in the parking area?

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

5. To make cooldrink I add 2 litres concentrate to 4 litres of water, means I have mixed the concentrate and water in the ratio \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ .

6. 1 litre of juice costs R12, 50. How much will you pay for 8 litres of the same juice?

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

7. If 5 kg of sugar costs R40 what is the price per kg?

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

8. Divide 200 objects into 5 equal groups.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

9. Share 300 apples equally amongst 20 people.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

10. A car travels at 75km/h. How far does the car travel in:

1. 1 hour? = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. 5 hours? = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

11. A nurse is paid R90 per day, how much does she earn in a 7-day week?

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

12. Lindi’s mom works five days at a restaurant. She receives R450 a week.

Complete the table below to calculate her rate of pay.

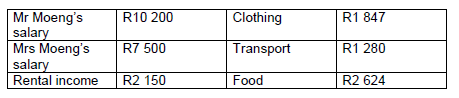
|  |  |  |  |
| --- | --- | --- | --- |
| Days worked | 5 | 10 | 15 |
| Money received | R 450 | \_\_\_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_\_\_ |

**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Solve problems involving money:**

|  |
| --- |
| **Example**  page-61,-activity-4,-super-saving  Look at the amounts under each of the money-boxes and do the following:  a) Write each amount in rands and cents.  b) Halve each amount. Round off the answer to the nearest cent.  c) What is the sum of the highest and lowest amounts?  d) How much is each amount short of R150,00?  **Answer**  a) A-R113,26 B-R91,85 C-R101,01 D-R75,32  b) A-R56,63 B-R45,93 C-R50,51 D-R75,00  c) A-R188,58  d) A-R36,74 B-R58,15 C-R48,99 D-R74,68 |

1. Below is a list of the income and expenditure per month for Mr & Mrs Moeng.



1. What is their total income for one month?­­­­­­­­­­­­­\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

b. What is their total expenditure? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. How much money do they have left at the end of every month? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

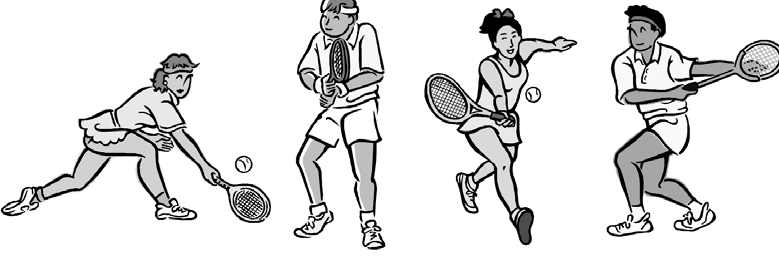


2. The school needs R55 500 for a new classroom.

So far they have R13 675.

How much more money do they need?

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_



3.

Four tennis players won these amounts in prize money.

Player A: R918 765 Player B: R909 999

Player C: R919 021 Player D: R899 999

Which player won the largest amount in prize money?

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**COMMON FRACTIONS**

|  |
| --- |
| **Example**  *page-186,-figure-4a*  *page-130,-figure-4a* |

1. **Counting forward and backward in common fractions**

1.1 Counting forward

1. , , \_\_\_\_\_\_\_\_\_\_ , \_\_\_\_\_\_\_\_\_\_ , ,
2. 2 , 2 , 2.., \_\_\_\_\_\_\_\_\_\_\_ , \_\_\_\_\_\_\_\_\_\_\_

1.2 Counting back wards

1. , , , \_\_\_\_\_\_\_\_\_\_\_ , \_\_\_\_\_\_\_\_\_\_\_\_ ,
2. 3 , 3 , 3 , \_\_\_\_\_\_\_\_\_\_\_ , \_\_\_\_\_\_\_\_\_\_\_
3. a. Write down the fourth term in the sequence.



b. Which fraction comes next in the given sequence?



1. **Representing fractions**
2. What fraction must be written in place of the letters?

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |

3.1.

A B 1 C 1

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |

3.2.

A B C

1. Shade the required fraction in each shape

|  |  |  |
| --- | --- | --- |
|  |  |  |
|  |  |  |
|  |  |  |

1. **Equivalent fractions**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Example**  , , ,   |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | **1 whole** | | | | | | | | | | | | |  | | | | | |  | | | | | | |  | | | |  | | | |  | | | | |  | |  | |  | |  | |  | |  | | |  |  |  |  |  |  |  |  |  |  |  |  | |

I got of my Maths work and James got for his work, which of us did better better?

Which fractions are equivalent to:-

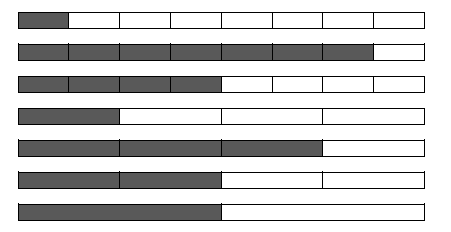
1. = \_\_\_\_\_\_\_\_\_\_\_\_ , \_\_\_\_\_\_\_\_\_\_\_
2. = \_\_\_\_\_\_\_\_\_\_\_ , \_\_\_\_\_\_\_\_\_\_\_
3. Write down the missing number in …



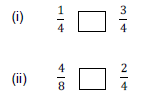
1. Write the missing part of these fractions.



1. **Comparing fractions**
2. Which is bigger: of a banana or of the banana \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
3. Which is smaller: of a hotdog or of the hotdog \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
4. Use the fraction strips to answer the questions.



Fill in **>** , **<** = to make correct statements.





1. Replace the in each of the following with < , > or = to make each one true. Write your answers in the spaces provided.



(i) \_\_\_\_\_\_\_\_\_\_ (ii) (ii) \_\_\_\_\_\_\_\_\_\_



1. Write down 2 fractions that are smaller than \_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_



1. Write down one fraction that is bigger than \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. **Addition and Subtraction of common fractions**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Example**   |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | |  |  |  |  |  |  |  |  |  |  |  |  | |  |  |  |  |  |  |  |  |  |  |  |  | |

a. Calculate the following:

1. - = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. 4 - 2 = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Iii. + = \_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

iv 3 + 1 = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_



b. Calculate: == \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

c. Subtract: = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. **Fraction of the whole**

|  |
| --- |
| **Example**   1. of 10. I have … =  x  =  = 2 2. b) I have  of 50. I have …  x  =  = 10 |

* 1. Find: calculate the answer of the following

1. of 24 apples \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1.  of 15 roses \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
   1. 750 bottles of medicines are sent to a clinic. of the bottles are medicines for TB.

How many bottles is this?

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. **Problem solving questions on fractions**

****

* 1. Lumka buys a small tray with eight seedlings she plants of seedling on Saturday and of seedling on Sunday.

1. What fraction of the tray has she planted over the weekend? --------------

* 1. The drawing show of the sheep on a farm?



1. How many sheep are there on the farm? ------------------------
   1. Abdul and Jabu work together to paint a poster Abdul paints of the poster and Jabu paints of the poster. They leave the rest of the poster unpainted.
2. What fraction of the poster did he leave unpainted? \_\_\_\_\_\_\_\_\_\_\_\_\_\_
3. Shade the painted part of the poster.

|  |  |  |  |
| --- | --- | --- | --- |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |

8.4. Mum baked a cake and cut it into 8 equal parts. Dad had 3 pieces. You had 1 piece. What

fraction of the cake is left?

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_



8.5. At the Moses Mabhida Stadium in Durban, of the 630 parking bays have been

reserved for officials. How many parking bays are left for the public?

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**CONTENT AREA: PATTERNS, FUNCTIONS & ALGEBRA**

**Numeric and geometric patterns**

|  |
| --- |
| **Example**  Complete the pattern**:**  page-117,-figure-2  Answer:  page-117,-figure-2 |

1. Which number comes next in the pattern?

15 ; 20 ; 30 ; 50 ; \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

a. 80 b. 120 c. 90 d. 110

*2. Draw a circle around the letter of the correct answer.*

What number comes next in the pattern?

15; 30; 20; 40; 30; 60; 50; 100; \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

a. 50 b. 120 c. 90 d. 110

1. Complete the patterns below
2. 56 158; 56 153; 56 148; \_\_\_\_\_\_\_\_\_\_\_ ; \_\_\_\_\_\_\_\_\_\_\_\_

b) 26 205; 26 215; 26 225; \_\_\_\_\_\_\_\_\_\_\_; \_\_\_\_\_\_\_\_\_\_

4. Extend the following patterns:

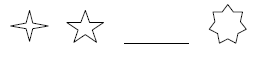
a. 25; 50; 75 \_\_\_\_\_\_\_\_\_\_\_\_; \_\_\_\_\_\_\_\_\_\_\_\_\_\_.

b. 1994; 1998; 2002; \_\_\_\_\_\_\_\_\_\_\_\_\_\_; \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

1. 99; 94; 89; \_\_\_\_\_\_\_\_\_\_\_\_\_; \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ .

5. Complete the number patterns below.   
 a) 45 ; 48 ; 51 ; \_\_\_\_\_\_\_\_\_\_; \_\_\_\_\_\_\_\_\_ ; 60.   
  
 b) 33 ; 38 ; 43 ; \_\_\_\_\_\_\_\_\_\_ ; \_\_\_\_\_\_\_\_\_\_ ;58 .

6. Complete the pattern**:**

****

7. Study the patterns below and answer questions thereof:

A B C D ……………….

Pattern 1 Pattern 2 Pattern 3 Pattern 4

a) Draw the next pattern i.e. Pattern 4

b) Complete the table below:

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Pattern | 1 | 2 | 3 | 4 | \_\_\_\_ | 8 |
| Number of dots | 1 | 3 | 6 | \_\_\_\_\_\_ | 15 | 36 |

8. To earn some extra money, Ashleigh makes necklaces to sell to her friends. The one she is

making is made up of 3 sets of red beads and 3 sets of white beads and looks like this:





If she continues with this pattern, how many beads of each colour will be in the next set?

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

9. Draw the next shape in each row to show a pattern.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Describe relationships or rules:**

|  |
| --- |
| **Example**  1; 3; 7; 15; 31……..  **The Rule:** Multiply by 2 and add one. |

1. Describe the following number patterns in your own words:

1. 2, 7, 12, 17, 22, 27

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

2. Identify the rule in each pattern.

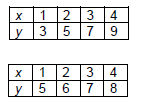
a. 21; 26; 31;

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

b. 56; 49; 42; ………

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

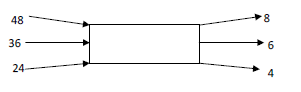
3. Describe the relationship between the numbers in the top row and the bottom row in each

table.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

4. Write down the rule used in the flow diagram.



\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. The farmer is going to the market to sell some of his farm produce. On the back of his truck he has the following items:

9 crates with 20 chickens each

4 goats

9 dozen eggs

1. Complete the table below using the information above.

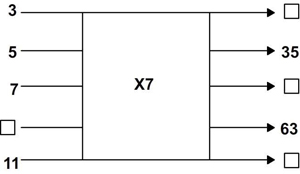
|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Number of crates | 1 | 2 | 3 | 4 | 7 | \_\_\_\_ | 14 |
| Number of chickens | 20 | 40 | 60 | 80 | 140 | 200 | \_\_\_\_\_ |

1. How did you find the answers or what rule did you use?\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

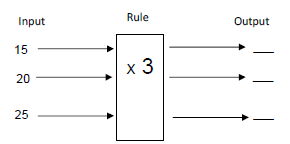
**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

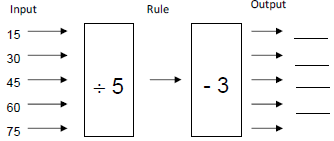
**Determine output values for a given input values using flow diagrams:**

|  |
| --- |
| **Example**  **page-86,-figure-3b** |

1. Complete the flow diagram below:  
 

2. Complete the following flow diagrams.





1. Complete the flow diagrams

10

13

2

**+20÷5**

**X9-5** 4

70

4

25

6

**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Write number sentences to describe a problem situation:**

|  |
| --- |
| **Example**  **Write a correct number sentence for the following:**  The Seal Island ferry makes 4 return trips a day to the Island of 25km for each return trip. What distance does the Seal Island ferry travel?  Answer:  25 x 4 =  Distance: 100km |

1. Write a correct number sentence for the following:

The tomato farmer harvested 44 trailer loads of tomatoes. Each trailer load had a mass of 245 kg. The tomatoes were then packed into boxes of 12 kg.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

2. Write a number sentence for each of the following:

a. There are 5 boys and 23 girls in a class. How many learners in the class?

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

b. A 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?

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. There are 20 handbags with 5 lipsticks in each bag. How many lipsticks are there

altogether?

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. The sum of four numbers is 20500. Three of the numbers are 2341, 578 and 10690.

What is the fourth number?

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

3. Write a number sentence and then calculate the answer.

Mrs Mashile bought world cup tickets for 29 soccer matches for herself and her husband at R160 each. How much did the tickets cost?

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Solve or complete number sentences:**

|  |
| --- |
| **Example**  5  (3 + 6) = (\_\_\_\_\_\_) + (\_\_\_\_\_\_) = \_\_\_  5  (3 + 6) = (53) + (56) = 15 + 30 = 45 |

1. Which number sentence below has the same value as

6 x (7 + 2) ?

a. (6 x 7) + 2 b. (6 x 2) + 7 c. (7 + 2) x 6 d. (6 + 2) x 7

*2. Draw a circle around the letter of the correct answer.*

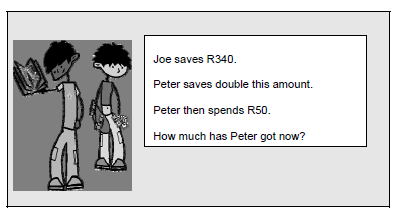
Which number sentence below has the same meaning as:

5 x (6 + 2)

a. (5 x 6) + 2 b. (5 x 2) + 6 c. (6 + 2) x 5 d. (5 + 2) x 6

*3. Draw a circle around the letter of the correct answer.*

Read this story.



Choose the number sentence that can help you find the answer.

a. 340 – 50 b. 340 + 340 – 50 c. 340 + 340 + 50 d. 340 + 50

4. Complete the following number sentence:

a) 156 – 8 = 24 +

5. Complete the following:

a) 225 + 18 = + 3

b) 156 - 8 = 24 +

c) 300 ÷ = 30 thus = \_\_\_\_\_

d) Circle a number from the given list below that will make the number sentence true.

24 ÷ = 5 - 2

(8; 3; 4; 6)

**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**CONTENT AREA: SPACE AND SHAPE**

**Recognize and name 2-D shapes and 3-D objects:**

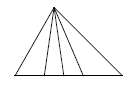
**2-D shapes:**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Example**  Complete the table below. Write the number and name of each shape in the right column.  page-165,-question-2   |  |  |  | | --- | --- | --- | | Five-sized shapes | Six-sized shapes | Eight-sized shapes | | 15 – pentagon | 8 – hexagon | 1 – octagon | |

1. How many shapes have 4 sides only?

 \_\_\_\_\_\_\_\_\_\_\_\_\_

2. The figure below is made up of triangles of different sizes:



How many triangles are there in this figure? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

3. (i) Name the following shapes:

A B C

\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_

D E

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

(ii) Name the types of angles in shape B

\_\_\_\_\_\_\_\_\_\_\_\_ ; \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

(iii) Give 1 similarity between the Square and a Rectangle with reference to the following:

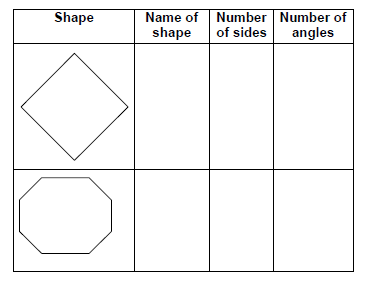
Sides: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

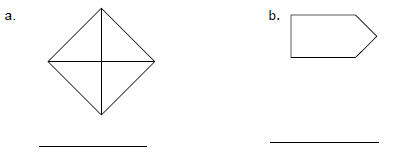
Angles: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

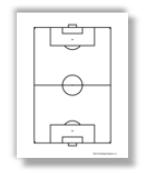
(iv) Give 1 difference between a square and the triangle in terms of the following:

Sides: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Angles: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

4. Complete the table.

5. Write down how many right angles there are in each of the shapes.



How many rectangles are there on the diagram of the soccer field? \_\_\_\_\_\_\_\_\_\_\_



Name the 2-D shapes on the soccer ball.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**3-D objects:**

|  |
| --- |
| **Example**  Count the number of edges on each object.  *page-190,-figure-1*  **Answer:**  Cube: 12 straight edges; square pyramid: 8 straight edges; cylinder: 2 curved  edges; triangular prism: 9 straight edges; cone: one curved edge |

* 1. Choose the correct name for each of the following 3-D objects:

Square rectangular prism quadrilateral cube rectangle

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. Why are the two objects above called “3-D objects”?

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. Use the sketches in question 3 to help you answer the following questions:

Cube

* 1. Compare the two objects, describing their **DIFFERENCES**:

HINT: Describe the differences with regard to

(a) the length of their sides, and

(b) the shape(s) of their faces

|  |  |
| --- | --- |
| **DIFFERENCES between the two 3-D objects** | |
| CUBE | RECTANGULAR PRISM |
| (a) | (a) |
| (b) | (b) |

* 1. Describe one **SIMILARITY** between these two 3-D objects:

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

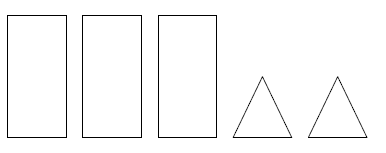
4. Complete the table below:

|  |  |  |
| --- | --- | --- |
| **Name of figure** | **Figure** | **Total number of edges** |
|  | *HANDS-ON-MATHS-GRADE-6_18_5* |  |
|  | *HANDS-ON-MATHS-GRADE-6_19_1* |  |

5. Complete the following table for your two objects:

|  |  |  |  |
| --- | --- | --- | --- |
|  | Number of faces | Number of edges | Number of vertices |
| Cube |  |  |  |
| Pyramid with triangular base |  |  |  |

6. Susan uses the five 2-D shapes below to make a 3-D object. What shape will the 3-D object

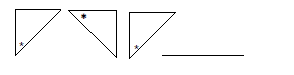
 be?

a. Triangular prism b. Rectangular prism c. Triangular pyramid d. Cube

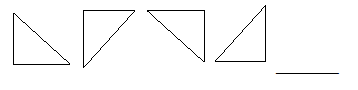
**Recognise, describe and performs transformations( Rotation, Reflection, Translation):**

|  |
| --- |
| **Example**  Rotation is a circular movement of an object around a center (or point) of ... This definition applies to rotations within both two and three dimensions (in a plane ...  A **Reflection** is a transformation in which the figure is the mirror image of the other.  Translation. In Geometry, "Translation" simply means Moving ... ... without rotating, resizing or anything else, just moving.  Translation:  **page-101,-figure-2a page-101,-figure-2a** |

1. Draw the next figure that follows in the space provided.

****

2. Draw the next figure that follows in the space provided:

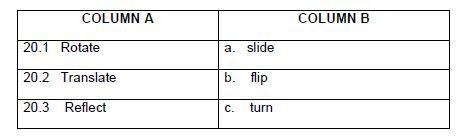
****

3. Complete the sequences by using either, slides, flips or turns:

3.1 🡺 🡹 🡸 \_\_\_\_ \_\_\_\_\_

3.2 ⯊ ⯋ ⯊ \_\_\_\_ \_\_\_\_

4. Match the words in column B with the words in column A. Write the answers on the spaces.

****

**\_\_\_\_\_\_\_\_\_\_\_\_\_**

**\_\_\_\_\_\_\_\_\_\_\_\_\_**

**\_\_\_\_\_\_\_\_\_\_\_\_\_**

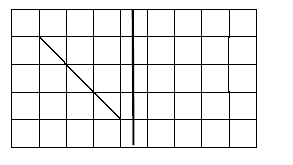
5. Which kind of movement has been used in each pattern: flip (reflection), slide (translation) or turn

(rotation).

………………… a) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

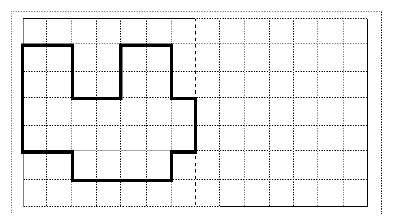
|  |
| --- |
|  |

b) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

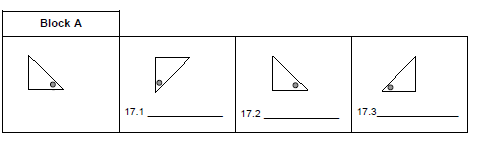
6. Reflect the shape about the dark vertical line.

7. 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.



8. The figure in Block A undergoes 3 different movements.

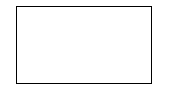
 Write down below each shape whether it has been rotated, reflected or translated:

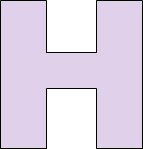
Draw the lines of symmetry on the shape below:

**Line of symmetry:**

|  |
| --- |
| **Example**  Draw lines of symmetry:  *page-187,-figure-7*    A rectangle has two lines of symmetry. **Line of symmetry** is a **line** that divides a figure into two equal parts, each of which is the mirror image of the other. |

1. Draw all the lines of symmetry in the shape.

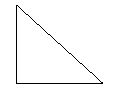




2. How many lines of symmetry does the above shape have?



1. Draw a line of symmetry in the triangle.



**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Describe and sketches views of 3-D objects in different positions:**

|  |
| --- |
| **Example**  **Views of everyday 3-D objects as in example below: FRONT view and TOP view.**  page-117,-figure-2 |

1. Look at this picture of objects on a round table.



left

righttt

front

Lenny has taken photos of these objects from different positions.

Where was he standing (left, front, right or back) when he took

1.1 photo A and

1.2 photo B?

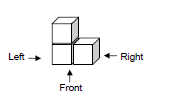


**Photo B**



**Photo A**

**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**



2.

1. Draw the view of the object from the right.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

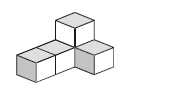
1. Draw the view of the object from the back.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

c. Draw the view of the object from the top.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. Draw the view of the 3-D object from the top.



\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**CONTENT AREA: MEASUREMENT**

**Length:**

|  |
| --- |
| **Example**  Estimate the lengths of the objects below  page-62,-activity-2,-estimating-and-measuring-in-centimeters    **Answer:**  Matchstick – about 4 cm  Paper clip – about 3 cm  Ballpoint pen – about 13 cm  Second ballpoint pen – about 11 cm  Beetle – about 2 cm  Blade of glass – about 5 cm |

1. Which of the instruments below would you use to measure the following?

|  |  |  |  |
| --- | --- | --- | --- |
| Ruler | Trundle wheel | Tape measure | Metre ruler |

1.1 the distance to the nearest shopping centre

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1.2 the length of the classroom

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1.3 the length of an eraser

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. Complete the following:

a) 50 m = \_\_\_\_\_\_\_ cm

b) 3 km = \_\_\_\_\_\_\_\_\_\_m

c) 55 mm = \_\_\_\_\_\_\_\_cm

d) 99 m = \_\_\_\_\_\_\_\_\_cm

1. Mount Everest is the highest mountain in the world. It is 8 848m high. The second highest mountain, K2, is 8 611 m high.

3.1 Write Mount Everest’s height in kilometres and metres.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

3.2 Write K2’s height in kilometres and metres.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

3.3 What is the difference in the heights of the two peaks?

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. John has to travel 1834 km from Cape Town to Swakopmund in Namibia. On the first day he travels 671 km, on the second day he travels 729 km and he reaches Swakopmund on the third day. What distance does he travel on the third day?

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

5. Use the ruler, measure and write down the lengths of sides A and B.

B

A

A = \_\_\_\_\_\_\_\_\_\_\_\_\_ cm

B = \_\_\_\_\_\_\_\_\_\_\_\_\_\_ cm

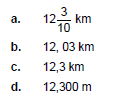
6. Which is longer? Km or 150m? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

7. Peter jogs km in 15 minutes. If he keeps jogging at that speed, how far will he jog in 1 hours? Circle the correct answer below.

a) 3 km b) 30 km c) 4 km d) 2 km e) 2 km

*8. Draw a circle around the letter of the correct answer.*

4 boys each write “12 km and 300 m” in the different ways shown below:

 One of these ways is not correct. Which one is it?

9. The length of my scarf is 2 metres. How long is it in centimetres? \_\_\_\_\_\_\_\_\_\_\_\_\_\_

**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Capacity:**

|  |
| --- |
| **Example**  page-13,-question-4   1. About how much cooldrink is in jug B? 2. Exactly how much cooldrink is in the jug? 3. If 250 m of cooldrink is poured out, how much will be left?   **Answer**  a) About  or 600 m or 800 m  b) 700 m  c) 700 m - 250 m = 450 will be left |



* 1. Poppy buys a 2 ℓ bottle of milk. She uses 250 mℓ of milk to bake a cake.

How much milk is left in the bottle?

\_\_\_\_\_\_\_\_\_\_ ℓ\_\_\_\_\_\_\_\_\_\_ mℓ

* 1. Edward sold 4 002 litres of paraffin in January, 98 000 millilitres of paraffin in February and

1 703 litres of paraffin in March. How many litres of paraffin did he sell altogether?

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

3. Pat has 2 litres of orange juice.

a. How many millilitres (*m*l) of orange juice does Pat have?

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. How many 250 *m*l full cups can Pat pour to empty the jug?

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

4. I have 2 litres 200 ml of orange juice.

a. How many millilitres (ml) of orange juice do I have in total?

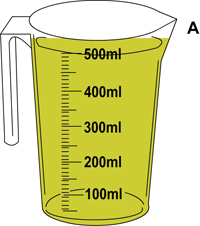
\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

b. How many full cups of 250 ml each can I pour?

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

5. Look at the diagram below and answer questions that follow:



a) How much water is in jug A? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

b) What do the numbers 100, 200,300,400 and 500 on the jug show?

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

c) What does each small line in between these numbers show?

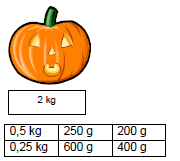
\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

d) Complete: 500 ml = \_\_\_\_\_\_\_\_\_ l (litres).

**Mass:**

|  |
| --- |
| **Example**  page-16,-exercise-3,-reading-scales   1. What do the numbers 100 to 1 000 on the scale show? 2. What does each small marking between them show? 3. How much flour is on the scale? 4. How much more flour is needed to make 1 kg?   **Answer**  a) Grams  b) 50 g  c) 900 g  d) 1 000 g – 900 g = 100 g; 100 g is needed to make 1 kg. |

1. Shade in the blocks in the table that give the total mass of the pumpkin.



1. Convert the following:

a) 4 kg = \_\_\_\_\_\_\_\_\_\_ g

b) 500 g = \_\_\_\_\_\_\_\_\_kg

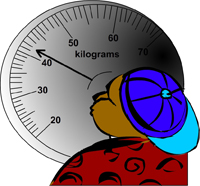
c)  kg = \_\_\_\_\_\_\_\_\_ g

d) 3 400 g can be written as \_\_\_\_\_kg and \_\_\_\_\_g

e) 0, 5 kg = \_\_\_\_\_\_\_\_ g

f) 3 500 g = \_\_\_\_\_\_\_\_ kg \_\_\_\_\_\_\_g

1. Study the scale below and answer questions that follow:



1. About how much is Martin’s mass? Is it closer to 40 kg or 50 kg? \_\_\_\_\_\_\_\_\_\_\_\_\_
2. What does each small marking between the 40 kg and 50 kg on the scale show?

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. Now say exactly how much Martin weighs.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

d) If Martin loses 3 kg what will his new mass be? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

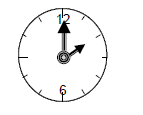
**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Time**

**Reads, tells and writes analogue, digital and 24-hour time:**

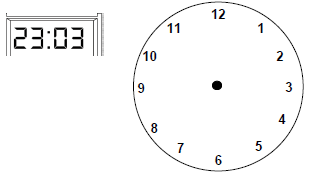
|  |
| --- |
| **Example**  Answer the following questions:  a) In 5 weeks we go to school for \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ days.  b) In a week we go to school for \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ hours.  c) In the month of May we go to school for \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ days.  d) In 8 weeks we go to school for \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ days.  e) In 6 weeks we go to school for \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ days.  **Answer**  a) 25 days  b) 27 and a half hours  c) 31 days  d) 40 days  e) 30 days |

1. Use the watch below to answer the question:



Write the time shown on the clock as a 24-hour clock time. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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



3. Write each 24-hour time in analogue time.

a. 06:00 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

b. 21:30 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

c. 23:15 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

4. Write each of the following in 24-hour time.

a. Quarter past 5 in the evening. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

b. Quarter to 8 in the evening. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

c. Half past 2 in the morning. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_





Write the digital time, shown above, as analogue time \_\_\_\_\_\_\_\_\_\_\_\_.

1. On the other clock, draw and write the time 15 minutes later.

12

1

2

3

4

5

6

11

10

9

8

7

12

1

2

3

4

5

6

11

10

9

8

7

7:20

(a)

12

3

6

9

(b)

12

1

2

3

4

5

6

11

10

9

8

7

17:55

7. How many minutes is in 1 hours? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

8. Tshepo read 260 pages of a book in 20 days. How many pages did he read per day?

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. Lungile leaves home at 07:20 every morning for school. She arrives at school at 07:45. How much time does she spend on the road? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. Add the following: 3 day 15 hours; 9 days 10 hours; 6 days 21 hours   
    \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Convert the answer to: \_\_\_\_\_\_weeks \_\_\_\_\_ days \_\_\_\_\_\_hours

**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Solve problems involving calculation and conversion between time units:**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Example**   |  | | --- | | **60 seconds = 1 minute** | | **60 minutes = 1 hour** | | **24 hours = 1 day** | | **7 days = 1 week** | | **12 months = 1 year** | | **10 years = 1 decade** | |

1. Complete the table below:

|  |  |  |
| --- | --- | --- |
| **NUMBER OF** | | |
| **YEARS** | **DECADES** | **MONTHS** |
| **e.g. 100** | **10** | **1200** |
| **50** |  |  |
| **25** |  |  |
| **75** |  |  |

2. Add: Subtract:

4 weeks 2d 13h 44min

9 weeks 3d 9h 35 min

\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_

1. 3.1. The first Dutch settlement at the Cape was built in the year 1652. It is now 2012.

How many years ago was the settlement built?

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

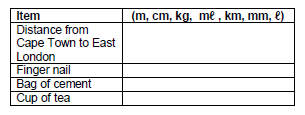
3.2. Break down the above number of years into:

\_\_\_\_\_\_\_\_\_\_ decades + \_\_\_\_\_\_\_\_\_\_ years.

**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Units of measurement:**

|  |  |  |  |
| --- | --- | --- | --- |
| **Example**   |  | | --- | | **10 millimetres = 1 centimetre** | | **100 centimetres = 1 metre** | | **1000 metres = 1 kilometre** | |

1. Choose the appropriate unit of measurement in each case.

**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Measurement of Temperature:**

|  |
| --- |
| **Example**  **The freezing point of pure water is 0**  **The boiling point of pure water is 100**  **The average normal human body temperature is 37** |

1. Which of the following temperatures would you consider as very cold?

20C 120 C 220 C \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

2. Study the temperature for five days as illustrated below and answer questions thereof:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | **Monday** | **Tuesday** | **Wednesday** | **Thursday** | **Friday** |
| Johannesburg  Min  Max | C  C | C  C | C  C | C | C  C |
| Chicago  Min  max | C  C | C  C | C  C | C  C | C  C |

1. What is the minimum temperature of Johannesburg on Thursday? \_\_\_\_\_\_\_\_\_\_\_\_
2. What is the difference between the minimum and maximum temperature in

Johannesburg on Tuesday? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

c) What is the maximum temperature of Chicago on Wednesday? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

d) What is the difference between the minimum and maximum temperatures in Chicago on

Friday? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**CONTENT AREA: DATA HANDLING**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Example**  **Organising and reading information**  **Question**  Jack’s school made a table and 2 graphs of the children’s hairstyles at their school   |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | | Style | Bob | Baby  Dreads | Freeze  wave | Braids | Number 1 | Other | | Number of children | 93 | 79 | 70 | 87 | 35 | 51 |   Now answer the following question by reading the data in the table.  a) How many children have their hair in a freeze wave?  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ children have their hair in a freeze wave.  b) How many children have their hair in baby dreads?  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ children have their hair in baby dreads.  **Answer**  a) 70 children  b) 79 children |

1. There are 50 learners in a class. They are working to improve their school environment.

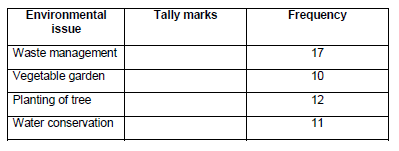
 17 are doing waste management

 10 are making a vegetable garden

 12 are planting trees

 11 are responsible for water conservation

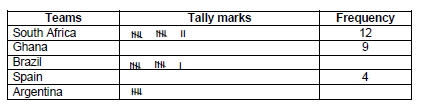
Complete the frequency table.



2. The following is a tally chart of soccer teams supported by the Grade 6A learners during the

World Cup 2010. The total number of Grade 6 learners in the school is 150.

Complete the frequency table.



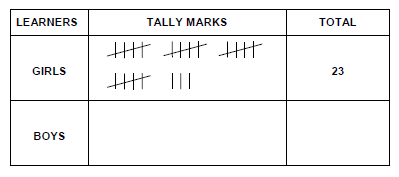
a. Write down the mode of the data set. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

b. What is the ratio of the number of the grade 6A learners to that of the grade 6

population? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

3. In a Grade 5 class, there are 37 learners. 23 learners are girls. Work out how many boys there

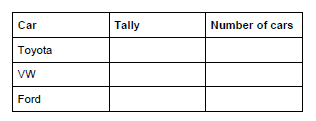
are and complete the table.



1. Here is a record of types of cars that drove past a point on the road on one morning:

Toyota, Toyota, VW, Toyota, Ford, Ford, Toyota, VW, VW, Ford, Ford, VW, VW, Toyota, Toyota, Toyota, VW, Ford, Ford, VW, VW, Toyota, Toyota, Toyota, VW, VW, Ford, VW, Toyota, and Toyota.

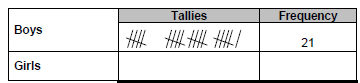
Sort and summarise this data in the table below.



1. In a Grade 5 class, there are 47 learners. 21 learners are boys.

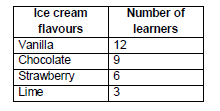
Work out how many girls there are.

Show the number using tallies.

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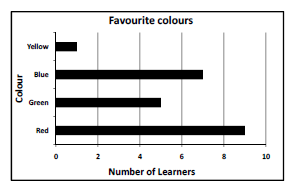
1. Shereen asked each learner in her class what their favourite ice cream flavour was. She

recorded the results in a table. Draw a bar graph to illustrate the data.



\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

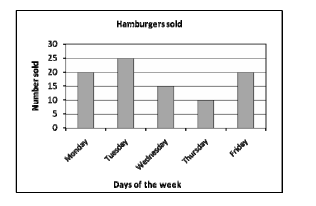
7. Use the bar graph to answer the questions given below.



1. The number of learners whose favourite colour is blue = \_\_\_\_\_\_\_\_\_\_\_\_\_
2. The favourite colour that is least chosen by learners is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
3. The favourite colour chosen by most learners is \_\_\_\_\_\_\_\_\_\_\_\_\_\_.

8. The graph below shows the number of hamburgers sold in a Tuck Shop in one week. Use the

graph to answer the questions that follow.

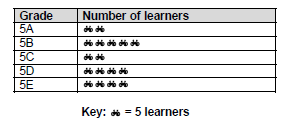


1. On which day were the most hamburgers sold? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. On which day were the least hamburgers sold? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
3. How many hamburgers were sold from Monday to Friday? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
4. If 10 more hamburgers had been sold each day, how many would have been sold on Friday? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

9. Anesh does a survey to find out how many Grade 5 learners have bicycles.

He draws this table to show his results.

No of learners who have bicycles

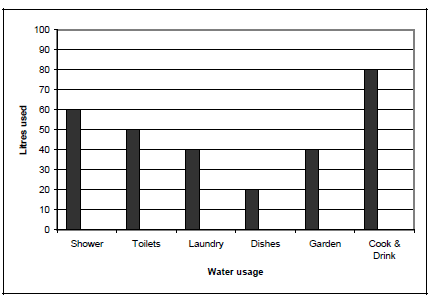
****

How many more learners have bicycles in Grade 5B than in Grade 5A?

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

10. Residents in a town were interviewed on their water usage per day. The following graph was

obtained from the data.



Use the information in the graph to answer the following questions.

a. How many litres of water do households use to cook and drink? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

b. Which two activities used an equal amount of water?

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**GOOD LUCK !!!!!!!**