

**TERM 1**

# TEST

**GRADE 7**

MATHEMATICS

# 2014

# SCHOOL BASED ASSESSMENT TASK

# MARKS: 50

# WEIGHTED MARK: 10

# SUGGESTED TIME: 1 hour

# TERM 1: Investigation

**INVESTIGATION**

**2015**

**MARKS: 70 EXAMINER :**

**TIME: 1 hour 30 Min MODERATOR :**

**This question paper consists of 8 pages**

**NAME :**

**GRADE 7 :**

Instructions

1. Read all the Instructions carefully
2. Section A consists of 8 multiple choice questions.
3. Show all your calculation
4. Diagrams not necessarily drawn according to scale
5. No calculators are allowed
6. If necessary, answers should be rounded off to TWO decimal places
7. Answers only will not necessarily be awarded full marks.
8. This question paper consists of 8 pages including the cover page.

**SECTION A**

**QUESTION 1: Multiple choice**

In each question, four possible answers are given. Choose the correct answer by circling the letter of the correct answer:

1. The highest common factor(HCF) of 18 and 24 is:
2. 5 B. 35 C. 12 D. 6

1. 3 + 62 ÷ 2=
2. 4 B. 21 C. 6 D. 9
3. A farmer packs 12 apples in every box. If the farmer has 4 272 apples, how many boxes does she need?
4. 4 260 B. 51 264 C. 12 D. 356
5. A set of points with a definite starting point and no definite end point is called:
6. Line segment
7. Ray
8. Parallel line
9. Straight line
10. To make a cooldrink I must mix concentrate with water in a ratio of 1: 3. If I have 400 ml of concentrate, how much water must I use?

A. 1 200ml B. 400ml C. 200ml D. 100m

6. The sixth prime number is

A. 5 B. 19 C. 13 D. 23

7. Beef cost R35 per kilogram. What is the cost of 5 kilogram?

A. R105 B. R175 C. R40 D. R7

8. A quadrilateral, in which all 4 sides are equal, is called a…

A.Rectangle B.Parallelogram C.Rhombus D. Kite

**[8]**

**Question 2: Whole numbers and exponents**

Calculate without using a calculator. Show the calculation steps where needed.

2.1. 24 502 + 35 798 (2)

2.2. 23 001 – 22 999 (1)

2.3. 378 45 (3)

2.4. 2 248 4 (3)

2.5. 3 + 4 - 32  (4)

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**Question 3: Percentages, discount and simple interest**

3.1. A shirt cost R600. I get 20% discount. How much do I pay? (4)

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3.2. Rapule invests R 5 000 in Mzanzi Bank for 5 years and is promised simple interest

of R350 per year.

3.2.1. Calculate the total interest that Rapule will earn after 5 years. (2)

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3.2.2. What will be the total amount in his account after 5 years. (2)

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**Question 4: Ratio, rate, factors and multiples**

4.1. Write the following ratio in its simplest form: 5: 25 (1)

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4.2. Share R240 between Nathi and Ayanda in the ratio 1 : 5 (4)

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4.3. Andile travelled 535 km in 5 hours and Chris travelled 200 km in 2 hours. Who travelled fastest? (5)

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4.4. Find the highest common factor (HCF) of 12 and 32 (3)

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4.5. Find the lowest common factor (LCM) of 3; 5 and 10 (4)

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4.6. Look at this list of numbers. 0; 24; 48; 8; 13; 2; 40; 1; 14

4.6.1. Which numbers are factors of 24? (1)

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4.6.2. Which numbers are multiples of 24? (1)

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4.6.3. Which numbers are prime? (1)

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**[20] Question 5: Geometry of 2D shapes**

5.1. Complete the following table: (5)

|  |  |  |
| --- | --- | --- |
| Type of angle | Description of an angle | Example |
| Acute | 5.1.1 | 600 |
| 5.1.2 | Is exactly 900 | 900 |
| Obtuse | Greater than 900 but less than 1800 | 5.1.3. |
| Straight angle | 5.1.4 | 1800 |
| 5.1.5 | Greater than 1800 but less than 3600 | 2870 |

is an isosceles triangle with AB = 7 cm and A = 200.

A

200

2

7 cm

B C

Find with reasons the:

5.2.1. length of AC (2)

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

* + 1. size of B (3)

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

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* + 1. size of C (2)

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* 1. ABCD is a square with AB = 5 cm.

A 5 cm B

D C

* + 1. What is the length of CD. Give a reason for your answer. (2)

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* + 1. Name a side parallel to BC. (1)

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* + 1. What is the size of the interior angle D? (1)

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* 1. Write down which pairs of triangles are congruent or similar by using letters A, B, C and D (Give reasons for your answers)

A

5 units

3 units

4 units

B

8 units 10 units

12 units

C

4 units 5 units

6 units

D

5 units

(4)

3 units

4 units

* + 1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

5.4.2. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

[20]

End of the paper