

Date: _____

NAME AND SURNAME: _____ Class section: _____

INSTRUCTIONS

1. Answer **ALL** questions on this question paper.
2. Show your calculations for questions of two marks or more.
3. **YOU MAY NOT USE A CALCULATOR** for this paper.

Section A**Multiple Choice Questions**

In this section, 4 possible answers are given for each question. Only **ONE** of the four options is correct. Circle the letter of the correct answer. If more than one letter is circled per question, no marks will be allocated for that question.

1. **The sixth prime number is**
A. 5 B. 19 C. 13 D. 23
2. **$4^2 - 2^3 =$**
A. 2 B. 8 C. 0 D. 19
3. **Twenty million six hundred and nine thousand and fifteen =**
A. 2 690 015 B. 20 069 015
C. 20 609 015 D. 20 609 150
4. **$9 \times 4 - 24 \div 12 \div 2 =$**
A. 35 B. $\frac{1}{2}$ C. 36 D. 2
5. **The fraction $\frac{24}{36}$ in its simplest form is**
A. $\frac{12}{18}$ B. $\frac{6}{9}$ C. $\frac{2}{3}$ D. $\frac{3}{4}$
6. **$\frac{3}{4}$ as a decimal fraction is**
A. 3,75 B. 0,75 C. 7,5 D. 3,4

[6]

Section B – Show all your calculations

Question 1 – Calculate the following

1.1. $986\,437 + 8\,659 + 7\,409\,298$ (2)

1.2. $8\,374\,205 - 406\,379$ (2)

1.3. $7\,095 \times 326$ (4)

1.4. $817\,324 \div 4$ (2)

1.4 Calculate the following by using the correct order of operations.
Add brackets where necessary.

a). $9 \times 4 \div 12 \div 3 =$ _____ (1)

b). $7 \times 4 - 60 \div 12 =$ _____ (2)

Question 2

2.1. List all the factors of 36. _____ (2)

2.2. List the prime factors of 36. _____ (2)

2.3. Determine the LCM of 4, 9 and 12. (4)

2.4 Express in exponential form: $a \times a \times a =$ _____ (1)

2.5 Simplify. (Show all calculations)

2.5.1 $2^3 + \sqrt{121} - \sqrt[3]{64}$

(4)

2.6 Find the value of the x^y if $x = 2$ and $y = 4$.

(2)

Question 3

3.1. In a class of 35 learners there are 25 boys and 10 girls. Write down the **ratio** of boys to girls.

(1)

3.2. Write down the **fraction** of boys out of the total number of learners above.

(1)

3.3. Simplify the **fraction** of boys to the total number of learners above.

(1)

3.4. The school has 25 boys who can play in the under 13 rugby team. The coach can take only 20 of them to play an away game. Calculate the percentage of the boys that can go on the trip.

(3)

Question 4

4.1 Complete the table

PERCENTAGE	DECIMAL FRACTION	COMMON FRACTION
12%	4.1.1 _____	$\frac{3}{25}$
4.1.2 _____	0,6	$\frac{3}{5}$
65%	0,65	4.1.3 _____

(3)

4.2. Convert the following mixed number to an improper fraction and the improper fraction to a mixed number.

a). $4\frac{1}{3} = \underline{\hspace{2cm}}$ (1)

b). $\frac{25}{6} = \underline{\hspace{2cm}}$ (1)

4.3. Complete the following equivalent fractions by filling in the missing numbers.

$$\frac{2}{3} = \frac{\underline{\hspace{1cm}}}{30} = \frac{12}{\underline{\hspace{1cm}}} \quad (2)$$

4.4. Calculate and write your answer as a mixed number.

a) $1\frac{1}{5} + 2\frac{2}{3} - 1\frac{6}{15}$

b) $2\frac{1}{4} \times 1\frac{1}{3}$

(5)

(2)

Question 5

5.1. Round 48,667 to the nearest

a) whole number _____ (1)

b) tenth _____ (1)

5.2. A dam is $\frac{2}{3}$ full. During the rain storm it fills by another $\frac{1}{5}$.

5.2.1 How full is the dam after the storm? (2)

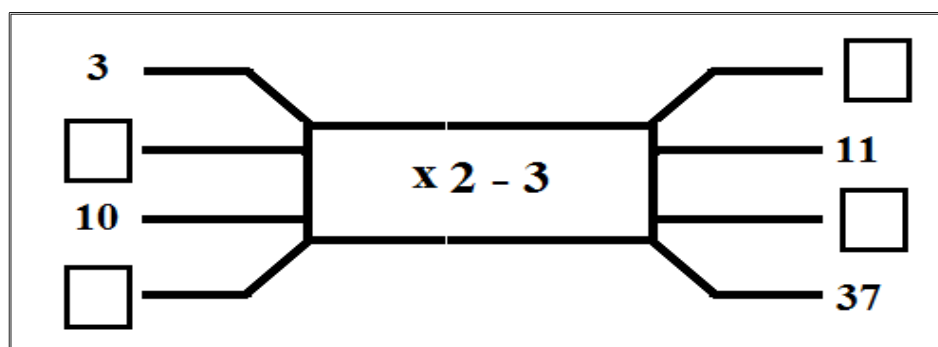
5.2.2. Will the dam overflow if it fills by a further $\frac{1}{3}$. Explain your answer. (3)

5.3 Zukhanye bought a tracksuit on sale at which all sports clothes were marked down by 20%. If the normal price of the tracksuit was R300, how much did he pay for it?

(3)

Question 6

6.1. Complete the following process diagram by filling in the missing input and output values that satisfies the relation in the middle.



(4)

6.2. Find the missing values of a , b and c by using the relation between x and y in the first column of the table.

x	2	3	4	c
$y = (x \times 2) \times 3$	12	a	b	42

(3)

Total: 70