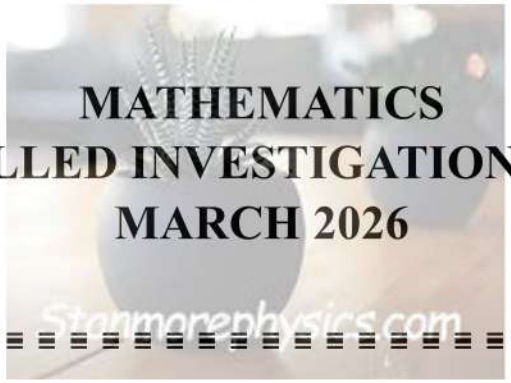
GET

GRADE 08

MATHEMATICS
CONTROLLED INVESTIGATION – TERM 1
MARCH 2026



MARKS: 50

TIME: 1 hour

This Question Paper consists of 4 pages.

INSTRUCTIONS AND INFORMATION

Read the following instructions carefully before answering the questions.

1. This investigation shall be done during two **lessons.**
2. This investigation consists of **6 Questions**.
3. Answer **ALL** the questions.
4. Number the answers correctly according to the numbering system used in this question paper.
5. Clearly show ALL calculations, diagrams (which may not necessarily be drawn to scale), graphs, etc, that you have used in determining your answers
6. Answers only will NOT necessarily be awarded full marks.
7. You may use an approved scientific calculator (non-programmable and non-graphical), unless stated otherwise.
8. If necessary, round off answers correct to TWO decimal places, unless stated otherwise.
9. Write neatly and legibly.

Topic: Fractions, Decimals, and Percentages Duration: 1 hour Marks: 50

Instructions to Learners

This investigation is designed for you to find out and learn. Show all working, explain your reasoning, and write short notes where asked. Marks are awarded for both correct answers and clear explanations.

Section A: Exploring Common Fractions (12 marks)

Question 1 (6 marks)

You are given the fraction $\frac{24}{36}$.

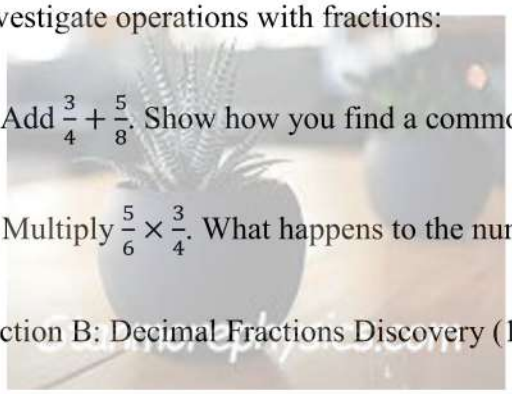
a) What is a common fraction? Simplify it step by step. What do you notice about the numerator and denominator? (3)

b) Investigate: Write down another fraction that simplifies to the same answer. (2)

c) Explain in your own words what it means for fractions to be "equivalent." (1)

Question 2 (6 marks)

Investigate operations with fractions:



a) Add $\frac{3}{4} + \frac{5}{8}$. Show how you find a common denominator. (3)

b) Multiply $\frac{5}{6} \times \frac{3}{4}$. What happens to the numerator and denominator? (3)

Section B: Decimal Fractions Discovery (12 marks)

Question 3 (6 marks) Investigate conversions: a) Convert $\frac{3}{5}$into a decimal. How did you do it? (2) b) Convert $\frac{7}{8}$into a decimal. What pattern do you notice in the division? (2) c) Write down a fraction that gives a repeating decimal. (2)

Question 4 (6 marks) Investigate operations with decimals: a) Calculate $3.45 + 2.67$. What happens when you align decimal places? (3) b) Calculate $6.4 \div 0.2$. Explain why dividing by a decimal less than 1 makes the answer bigger. (3)

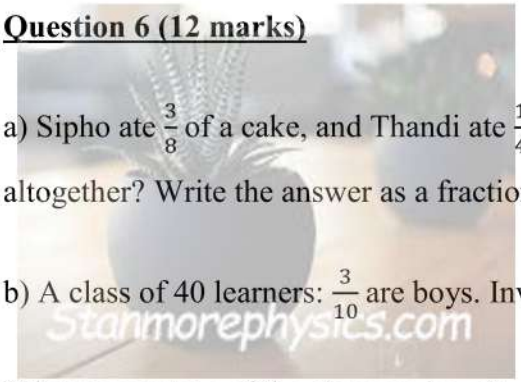
Section C: Percentages in Action (14 marks)

Question 5 (14 marks) a) Write 0.75 as a percentage. Explain how you know. (2) b) Write $\frac{3}{20}$as a percentage. Show the steps. (2) c) A learner scores 36 out of 50 in a test. Investigate: What fraction is this? What decimal? What percentage? (4) d) A shop offers a 15% discount on a jacket costing R480. Investigate:

- What fraction of the price is the discount? (2)
- What is the discount in rand? (2)
- What is the final price? (2)

Section D: Problem Solving in Context (12 marks)

Question 6 (12 marks)



a) Sipho ate $\frac{3}{8}$ of a cake, and Thandi ate $\frac{1}{4}$. Investigate: How much of the cake did they eat altogether? Write the answer as a fraction and a decimal. (4)

b) A class of 40 learners: $\frac{3}{10}$ are boys. Investigate: How many boys are there?

What percentage of the class are boys?

(4) c) A car travels 120 km in 2 hours. Investigate: What is the speed in km/h? How far will it travel in 3.5 hours? (4)

