ELIMU254 TOPICAL REVISION

Kenya CBC | Junior School | Grade 8

Name		**Class**	
School		**Year**	

TOPICAL REVISION QUESTIONS

GRADE 8: MATHEMATICS: ALL STRANDS

155 questions in 16 exercises, with all the answers at the back

HOW TO USE THIS BOOK

1. Each subject follows the KICD curriculum design strand by strand. There is one exercise for every sub-strand, in the order it is taught.
2. Do an exercise after the sub-strand is taught, for revision before a test, or as homework and holiday work.
3. Answer in the spaces provided. For a multiple-choice question, circle the letter (A, B, C or D) of the correct answer.
4. The marks for each question are shown in brackets. Show your working where a question needs it.
5. The answers for every exercise are at the back of the book, subject by subject, for the teacher or parent to mark.

SUBJECTS IN THIS BOOK

Subject	Exercises	Questions
Mathematics	16	155

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MATHEMATICS

Revision questions

NUMBERS

Exercise 1: Integers (20 marks)

1. (-7) + 3 = ? (1 mark)

A (-4) **B** 4

C (-10) **D** 10

2. 5 - (-4) = ? (1 mark)

A 1 **B** 9

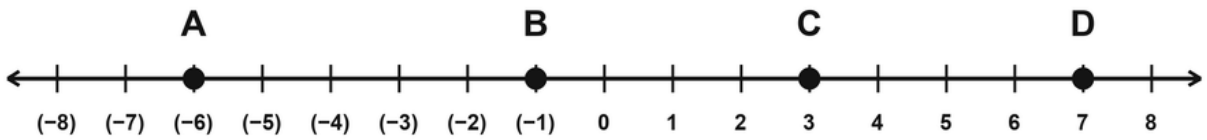
C (-9) **D** (-1)

3. Which integer is the smallest? (1 mark)

A 0 **B** (-2)

C (-9) **D** 3

4. Points A, B, C and D are marked on the number line below.



A number line

(a) Write the integer at each point. (2 marks)

(b) Work out D - A. (1 mark)

(c) Work out A - C. (1 mark)

5. Work out:

(a) (-8) + 5 - (-6) (2 marks)

(b) (-12) - (-4) + (-3) (2 marks)

6. At 6 a.m. the temperature on a mountain was (-4)°C. By noon it had risen by 11°C, and by night it fell by 9°C from the noon reading. Find the noon and night temperatures. (3 marks)

7. A kiosk made a profit of Ksh 500 on Monday, a loss of Ksh 300 on Tuesday, a loss of Ksh 450 on Wednesday and a profit of Ksh 800 on Thursday. Use integers to find the total for the four days. (2 marks)

CHALLENGE: harder questions to stretch the best learners

8. Work out -3 - (-8) + (-6). (1 mark)

A -17 **B** -1

C 5 **D** 11

9. Floors below the ground floor are numbered -1, -2, ... A lift starts at floor 4. It goes down 7 floors, then up 5 floors, then down 9 floors.

(a) On which floor does it stop? (2 marks)

(b) How many floors did it move altogether? (1 mark)

Exercise 2: Fractions (21 marks)

1. The reciprocal of 2 1/3 is: (1 mark)

A 7/3 **B** 1/3

C 3 **D** 3/7

2. 3/5 ÷ 3/10 = ? (1 mark)

A 2 **B** 9/50

C ½ **D** 6/5

3. ½ + ½ × ½ = ? (1 mark)

A ½ **B** ¾

C 1 **D** ¼

4. Work out ¾ ÷ 1/8 + 2/3 of 9. (3 marks)

5. Work out (2½ - 1 1/3) × 3/7. (3 marks)

6. A farmer has 36 acres. He plants maize on 1/3 of the land and beans on ¼ of the remainder. The rest is for grazing.

(a) How many acres are under maize? (1 mark)

(b) How many acres are under beans? (2 marks)

(c) How many acres are for grazing? (1 mark)

7. A tank is 5/8 full and holds 250 litres. Find its full capacity. (2 marks)

8. A rope 4½ m long is cut into pieces each 3/8 m long. How many pieces are there? (2 marks)

CHALLENGE: harder questions to stretch the best learners

9. Work out ¾ + 2/3 ÷ 4/9 - ½. (1 mark)

A 1¾ **B** 2 11/16

C ¾ **D** 2¼

10. Work out 2/5 of 1¼ ÷ (½ - 1/3). (3 marks)

Exercise 3: Decimals (22 marks)

1. 0.333... as a fraction is: (1 mark)

A 3/10 **B** 33/100

C 1/3 **D** 3/100

2. 0.000506 has how many significant figures? (1 mark)

A 6 **B** 4

C 2 **D** 3

3. 6.2 × 10^3 = ? (1 mark)

A 6,200 **B** 620

C 62,000 **D** 0.0062

4. Convert to decimals. Say if the decimal recurs.

(a) 3/8 (1 mark)

(b) 7/20 (1 mark)

(c) 2/3 (1 mark)

5. Convert each recurring decimal to a fraction in its simplest form.

(a) 0.777... (2 marks)

(b) 0.272727... (2 marks)

6. Rounding:

(a) Round 46.8352 to 2 decimal places. (1 mark)

(b) Round 0.007465 to 3 significant figures. (1 mark)

(c) Round 52,481 to 2 significant figures. (1 mark)

7. Write in standard form:

(a) 45,600 (1 mark)

(b) 0.00072 (1 mark)

8. Work out (2.4 × 0.5 + 3.6) ÷ 0.8. (3 marks)

CHALLENGE: harder questions to stretch the best learners

9. The recurring decimal 0.454545... written as a fraction in its simplest form is (1 mark)

A 9/20 **B** 5/11

C 45/100 **D** 4/9

10. Work out 0.25 × 1.2 + 0.48 ÷ 0.06 and give the answer to 2 significant figures. (3 marks)

Exercise 4: Squares and Square Roots (19 marks)

1. 0.4^2 = ? (1 mark)

A 0.8 **B** 0.16

C 1.6 **D** 0.016

2. The square root of 0.09 is: (1 mark)

A 0.03 **B** 0.009

C 0.3 **D** 3

3. A square has area 64 cm². Its perimeter is: (1 mark)

A 8 cm **B** 16 cm

C 64 cm **D** 32 cm

4. Find the square of:

(a) 2.5 (1 mark)

(b) 0.07 (1 mark)

(c) 3/5 (1 mark)

5. Find the square root of:

(a) 0.0144 (1 mark)

(b) 6.25 (1 mark)

(c) 1 9/16 (2 marks)

6. A square garden has an area of 1,225 m².

(a) Find the length of one side. (1 mark)

(b) Fencing costs Ksh 350 per metre. Find the cost of fencing the garden. (2 marks)