Name_____ Index No._____/_____

8011/2
ECDE CERTIFICATE PROFICIENCY
ARITHMETIC
December 2014
Time: 1 hour

Candidate's Signature_____

Date _____

THE KENYA NATIONAL EXAMINATIONS COUNCIL

EARLY CHILDHOOD DEVELOPMENT AND EDUCATION

CERTIFICATE PROFICIENCY EXAMINATION

ARITHMETIC

1 hour

INSTRUCTIONS TO CANDIDATES

Write your name and index number in the spaces provided above.
Sign and write the date of examination in the spaces provided above.
*Answer **ALL** the questions in this paper.*
All answers must be written in the spaces provided in this booklet.
*Do **NOT** remove any pages from this booklet.*
Candidates should answer the questions in English.

For Examiner's Use Only

Maximum Score	Candidate's Score
40	

This paper consists of 7 printed pages.

Candidates should check the question paper to ascertain that all the pages are printed as indicated and that no questions are missing.

Turn over

1. (a) Write the number 8 645 379 492 in words. (2 marks)

(b) Round off the number in 1 (a) above to the nearest ten million. (1 mark)

2. Three tea urns can each hold 72, 56, 120 litres respectively. What is the capacity of the greatest vessel that can be used to fill each one of them exactly? (2 marks)

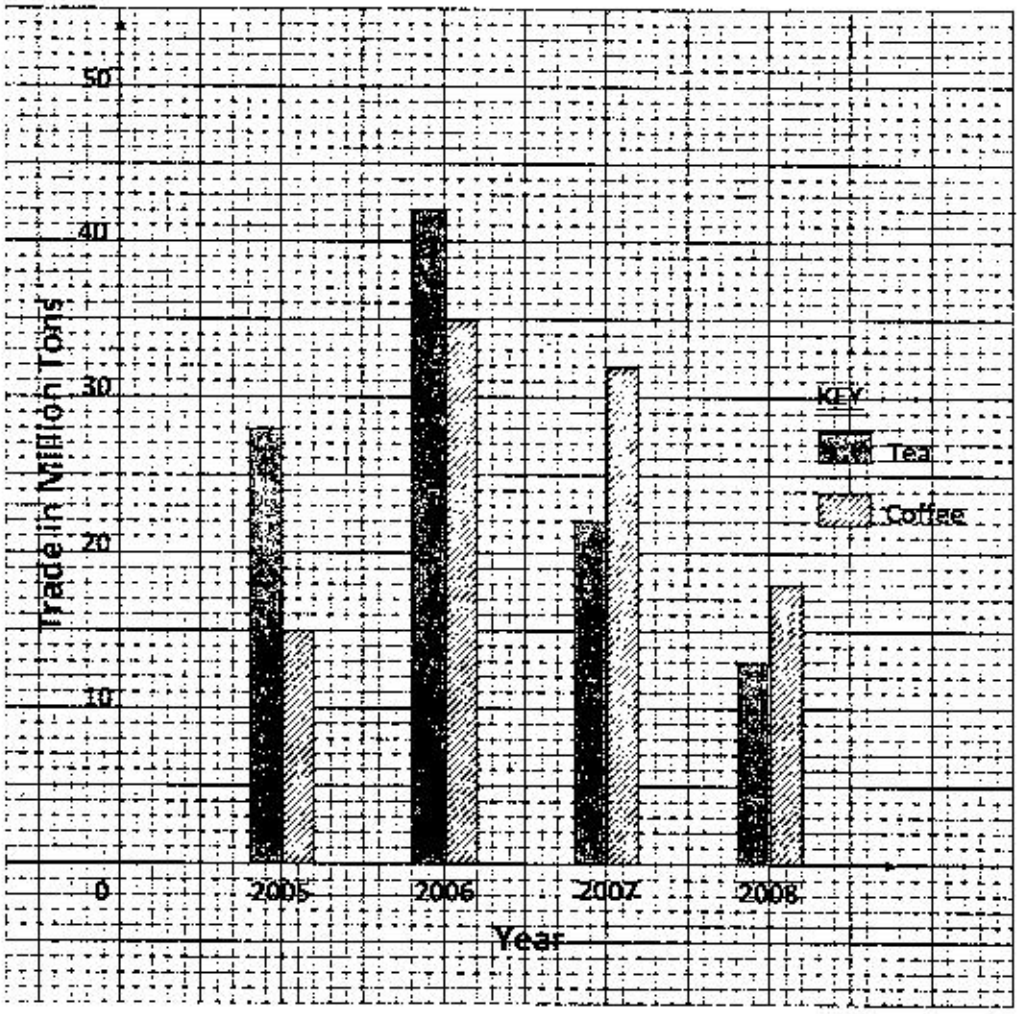
3. By selling an article at sh 960 Jane made a profit of 25%. What was the buying price of the article? (2 marks)

4. A mixture is made of cement, sand and gravel in the ratio 2:3:5 by mass. Find the mass of cement in a mixture that contains 16 kg of gravel. (2 marks)

5. A cylindrical jar of diameter 6 cm and height 9 cm is full of milk. The milk is poured into another cylindrical container of diameter 4 cm. What is the depth of the milk in the container?

(2 marks)

6. The multiple bar graph below represents exports of tea and coffee in a certain country in the years shown.



(a) Which commodity was exported most in the four years and by how much? (2 marks)

(b) Find, the average export, within the four years, for:

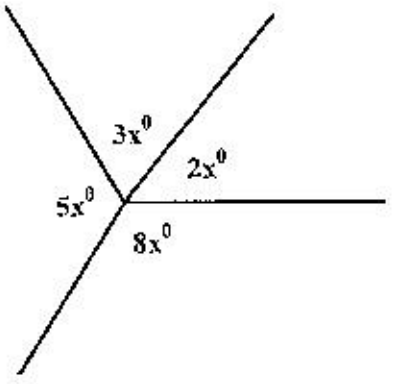
(i) tea; (1 mark)

(ii) coffee. (1 mark)

7. (a) Find the gradient of the line which passes through the points (3, 5) and (6, 11). (1 mark)

(b) Determine the equation of the line passing through the two points above in the form $y = mx + c$. (2 marks)

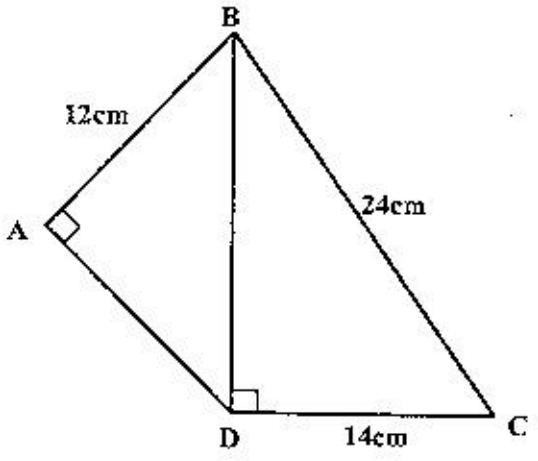
8. Find the value of x in the figure below. (2 marks)



9. Solve the following equation: $2y - 7 = 8 - 3y$. (1 mark)

10. Given that vector $x = \begin{pmatrix} 3 \\ 4 \end{pmatrix}$ and $y = \begin{pmatrix} 1 \\ 2 \end{pmatrix}$, find the vector z, given that $z = 2x - 3y$. (2 marks)

11. Calculate the values of lengths BD and AD in the figure given below. (4 marks)

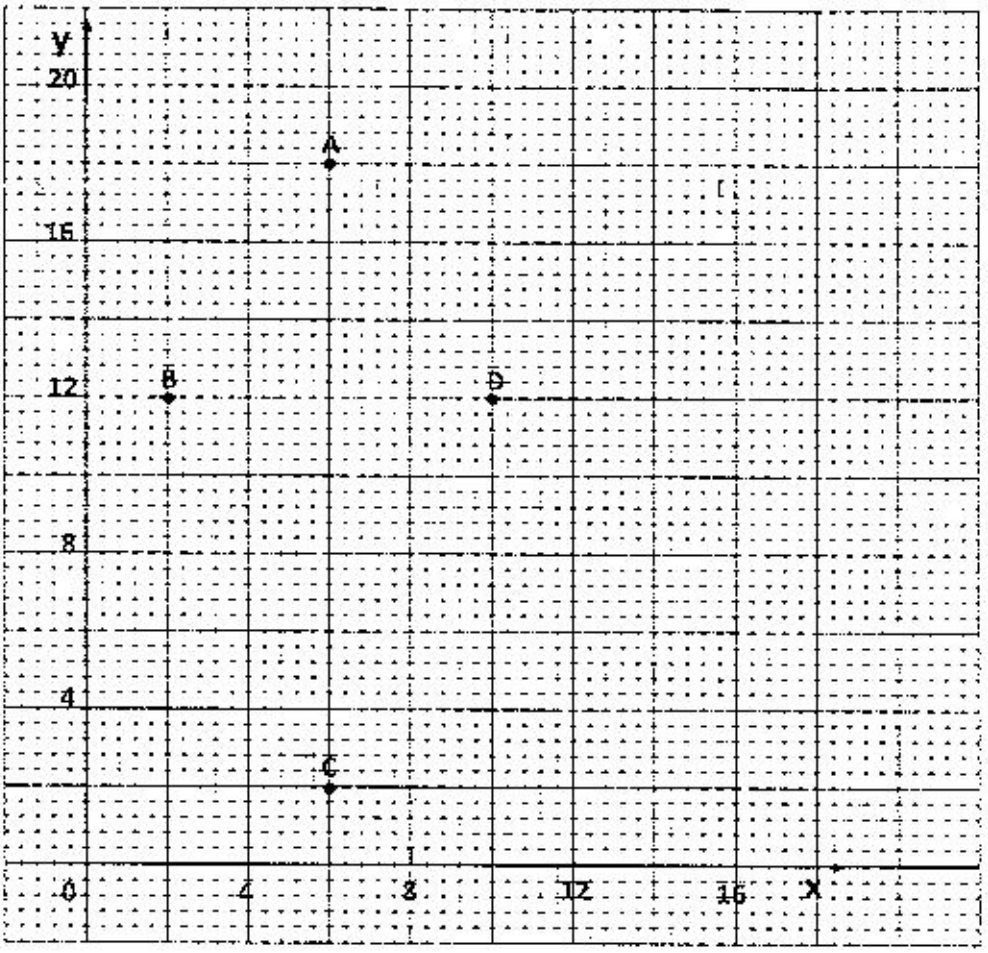


12. A bus which consumes 1 litre of fuel for every 9 km, uses 108 litres of fuel for a journey. Find the number of litres of fuel a trailer which consumes 1 litre of fuel for every 6 km would use for the same journey. (3 marks)

13. A cuboid measures 1.5 m long, 0.4 m wide and 25 cm high. It's made of a material of density 7.5 g/cm^3. Calculate its mass in kilograms. (3 marks)

14. A Kenyan athlete travelled to Japan for a race, where he won and was awarded 3 000 000 Japanese Yen. He spent 100 000 Japanese Yen to buy gifts in Tokyo. How much in Kenya shillings did he remain with.
(100 Japanese Yen = sh 62.84) (3 marks)

15. The graph below shows four points **A, B, C** and **D** plotted on the **X Y** axes.



(a) State the co-ordinates of points A, B, C and D shown on the grid above. (2 marks)

(b) Draw the lines joining the points A, B, C and D to form a polygon. Identify the quadrilateral so formed. (2 marks)