

**EDUCATION-NEWS CONSULT
DEC. 2023 BECE HOME MOCK 2**

**(2024 BECE)
MATHEMATICS 1 & 2**

Name.....

Index Number.....



EDUCATION-NEWS CONSULT – DODOWA, ACCRA

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EDUCATION-NEWS CONSULT MOCK – DEC 2023 EDITION FOR 2024 BECE

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SPECIAL PERFORMANCE BOOSTER – MOCK 2

FINAL MARKING SCHEME

**PAPER 1
OBJECTIVE TEST
[40 MARKS]**

- | | | | | |
|------|-------|-------|-------|-------|
| 1. A | 9. D | 17. B | 25. D | 33. C |
| 2. B | 10. D | 18. B | 26. C | 34. C |
| 3. C | 11. D | 19. B | 27. A | 35. B |
| 4. A | 12. A | 20. C | 28. C | 36. C |
| 5. C | 13. C | 21. A | 29. B | 37. B |
| 6. C | 14. C | 22. C | 30. B | 38. D |
| 7. D | 15. C | 23. D | 31. D | 39. C |
| 8. A | 16. C | 24. B | 32. A | 40. A |

PAPER 1
[60 MARKS]

QUESTION ONE

a. Arko's earnings = $3 \times$ (Adom's earnings)

1 Mark

$$A = 3 \times 2,500$$

M1

$$= \text{GH}\text{¢ } 7,500$$

A1

Total income after five years = (sum of their income \times 12 months) \times 5

1 MARK

$$2,500 + 7,500$$

M1

$$10,000 \times 12$$

M1

$$120,000 \times 5$$

M1

$$600,000$$

A1

In five years, both of them will earn GH¢ 600,000.

1 MARK

b. $\sqrt{\frac{16}{100}} = \frac{4}{10}$

M1

$$\frac{4}{10}$$

M1

$$\frac{2}{5}$$

A1

c. $105^\circ + x = 180$

M1

$$x = 180 - 105$$

M1

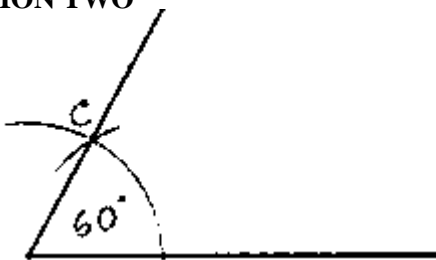
$$x = 45^\circ$$

A1

QUESTION TWO

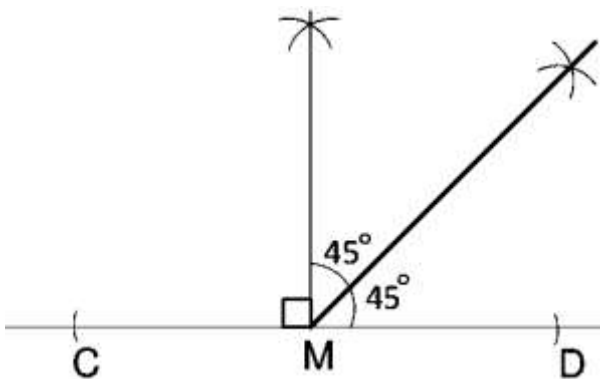
a. i.

5 MARKS



ii.

5 MARKS



b. $23,000 \times 0.00013$

$(23.0 \times 10^3) \times (13.0 \times 10^{-5})$	M1
$(23 \times 13) \times (10^{3+(-5)})$	M1
299×10^{-2}	M1
2.99×10^1	M1
$= 2.99$	A1

QUESTION THREE

a.i $11 + (3x - 3) + 3 + 5 + 3x = 46$	M1
$11 - 3 + 6 + 3 + 5 + 3x = 46$	M1
$22 + 6x = 46$	M1
$6x = 46 - 22$	M1
$\frac{6x}{6} = \frac{24}{6}$	
$x = 4$	A1
ii. Area = L \times B.	
L = 6 + 5	M1
L = 11	A $\frac{1}{2}$
B = 3(4) - 3	M1
12 - 3	
= 9	A $\frac{1}{2}$

a = 11 \times 9	M1
99cm ²	A1
a = L \times B	
a = 3 \times 5	M1
15cm ²	A1
a = 15 + 99	M1
114cm ²	A1

QUESTION FOUR

a. Area of a circle = πr^2		
A = πr^2	M ₁	M1
A = 154		M1
$\pi = \frac{22}{7}$	M ₁	M1
$154 = \frac{22}{7} \times r^2$	M ₁	M1
$\frac{7 \times 154}{22} = \frac{22 r^2}{22}$		M1
$r^2 = 7 \times 7$	M ₁	M1
$\sqrt{r^2} = \sqrt{7 \times 7}$		M1
r = 7		A1
d = 2r		M1

$d = 2(7)$	M1
$d = 14cm$	A1

b. $a = \frac{1}{2} bh$	
$a = \frac{1}{2} (6) (6)$	M1
$1 \times 3 \times 6$	M1
$18cm^2$	A1

QUESTION FIVE

a. Ebo's weight = 28.6kg	
His father weight = 4 (Ebo's weight)	M1
Father's weight = 4 (28.6)	M1
Father's weight = 114.4kg	A1
Total weight = 28.6kg + 114.4kg	M1
= 142.8kg	A1

b. $\frac{3}{5}$ of 2500	M1
$\frac{3}{5} \times 2500$	M1
1500	
\therefore GHC1500 is left	A1

c. i. 5: 15 = 12: M	
$\frac{4}{15} = \frac{12}{M}$	M1
$4 \times M = 15 \times 12$ (cross multiply)	M1
$\frac{4M}{4} = \frac{180}{4}$	M1
$M = 45$	A1

ii. 4: 15 = 20: N	
$\frac{4}{15} = \frac{20}{N}$	
$4 \times N = 20 \times 15$	M1
$\frac{4N}{4} = \frac{300}{4}$	M1
$N = 75$	A1

QUESTION SIX

a. Commission = 25%	
Total sales = GH¢ 2,000	
Monthly salary = GH¢ 1,200	
Commission = 25 of 2,000	M1
$C = \frac{25}{100} \times 2,000$	M1
25 x 20	M1
Commission = 500	A1
Total earning = 1,200 + 500	M1
1,7000	
GH¢ 1,7000	A1

b. i. 5 mathematical sets	
1 = GH¢ 5.00	
$5 = 5 \times 5$	M1
GH¢ 25	A1

ii. 6 pens	
1 = GH¢ 1.00	
$6 = 6 \times 1$	M1
GH¢ 6.00	A1
iii. 10 rules	
1 = GH¢ 1.20	
$10 = 10 \times 1.20$	M1
GH¢ 12	A1
iv. 1 graph book = GH¢ 2.50	A1
v. total = $25 + 6 + 12 + 2.50$	M1
GH¢ 45.5	
Amount required = GH¢ 45.5	A1