

ACHIEVERS FOCUS EXAMINATION SERIES
Kenya Certificate of Primary Education (K.C.P.E)
STANDARD 8 – CODE 001 – 2020

MATHEMATICS

Time: 2 hours

READ THESE INSTRUCTIONS CAREFULLY

1. You have been given this question booklet and separate answer sheet. The question booklet contains 50 questions.
2. Do any necessary rough work on this booklet.
3. When you have chosen your answer, mark it on the **answer sheet**, not in this question booklet.

HOW TO USE THE ANSWER SHEET

4. Use only an ordinary pencil.
5. Make sure you have written on the answer sheet:
Your Index Number
Your Name
Name of Your School
6. By drawing a **dark line** inside the correct numbered boxes mark your full Index Number (i.e. School Code Number and the three-figure Candidate's Number) in the grid near the top of the answer sheet.
7. Do not make any marks outside the boxes
8. Keep the sheet as clean as possible and not fold it.
9. For each of the questions 1 -- 50 four answers are given. The answers are lettered A, B, C and D. in each case only **one** of the four answers is correct. Choose the correct answer.
10. On the answer sheet the correct answer is to be shown by drawing a **dark line** inside the box in which the letter you have chosen is written.

Example

In the Question Booklet:

11. What is the value of $\frac{6(24-18)+6 \times 4}{6}$

- A. 30
- B. 25
- C. 10
- D. 28

The correct answer is C (10)

On the Answer Sheet:

A (B) (C) (D) **HEB** (A) (8) (6) **E** (A) (B) (C) (D) **EI** (A) (B) (C) (D) **EI** (A) (B) (C) (D)

11. Your **dark line must** be within the box.
For each question **only one** box is to be marked in each set of four boxes.

Website: www.achieversfocus.co.ke
Email: wegopublish@gmail.com

- What is the only six million two hundred and eight thousand and sixty less four hundred and twenty thousands in figures?
 - 2620440
 - 26628060
 - 25788060
 - 25860060
- Find the value of digit 4 in the product of 0.24 and 210.
 - Tenths
 - Four tenths
 - Hundreds
 - Four
- Find the sum of the smallest and the largest number that can be formed from the digits: 6, 1, 0, 9, 5.
 - 94941
 - 95941
 - 98079
 - 107079
- Find the capacity of a cylinder in litres if the base area is 616cm² and it has a height of 20cm.
 - 12320
 - 123200
 - 102320
 - 12.32
- Round off 16499 to the nearest thousand.
 - 16000
 - 16500
 - 20000
 - 27000
- Work out: 20.005 + 50
 - 40001
 - 0.4001
 - 4.001
 - 0.04001

- The area of the square below is 49 m². Calculate its perimeter.

$$A = 49 \text{ m}^2$$

- 8 m
- 19 m
- 28 m
- 47 m

- What distance was covered by an athlete who made 8 laps round the track in km?

140m

200m

- 128
 - 12.8
 - 6.72
 - 840
- Work out $720 - (120 \div 6) + 22 \times 8$
- 450
 - 900
 - 171
 - 225

4. What is twenty six million two hundred and eight thousand and fifty less than hundred and twenty thousand in figure?
- A. 2020400
 B. 2020450
 C. 2762000
 D. 2020400

5. Find the value of digit 4 in the product of 4.25 and 210.
- A. Tenth
 B. One tenth
 C. Hundredth
 D. Four

ACHIEVERS FOCUS EXAMINATION SERIES

PRINTED BY WEGO PUBLISHERS

Page?

6. Find the sum of the smallest and the largest number that can be formed from the digits
- A. 1, 2, 3, 4
 B. 6431
 C. 2301
 D. 24310

7. Find the capacity of a cylinder in litres if the base area is 616cm^2 and it has a height of 10cm.
- A. 1820
 B. 18200
 C. 182000
 D. 18.20

8. Round off 16420 to the nearest ten thousand.
- A. 10000
 B. 16000
 C. 20000
 D. 27000

9. Work out: $24,000 \div 50$
- A. 4800
 B. 48000
 C. 480
 D. 48000

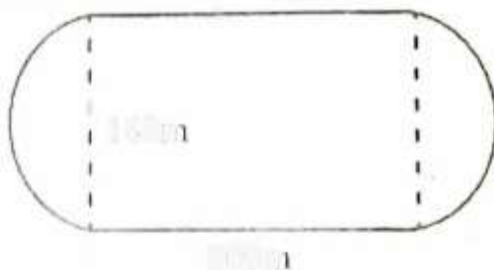
10. The area of the square below is 100cm^2 . Calculate its perimeter.

10. What is the value of x in: $\frac{x-0}{5} = 4$
- A. 20
 B. 19.5
 C. 23.5
 D. 22



- A. 20
 B. 19.5
 C. 23.5
 D. 22

11. What distance was covered by an athlete who made 3 laps around the track in 1hr?



- A. 100
 B. 12.5
 C. 0.125
 D. 300

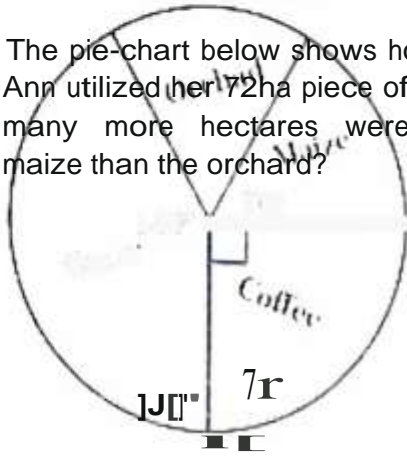
12. Work out $750 \div (1200 \div 5) + 25 \times 8 - 120 \div 10$
- A. 300
 B. 200
 C. 171
 D. 2200

13. What is the value of x in: $\frac{x-0}{5} = 4$
- A. 20
 B. 19.5
 C. 23.5
 D. 22

11. Workout $\frac{6.25 \times 0.48 \times 0.32}{1.6 \times 2.4 \times 1.25}$

- A. 2
- B. 0.2
- C. 0.02
- D. 0.002

12. The pie-chart below shows how Madam Ann utilized her 72ha piece of land. How many more hectares were used for maize than the orchard?



- A. 4
- B. 6
- C. 2
- D. 14

13. What is the least number that can be subtracted from 60260 to make it divisible by 11?

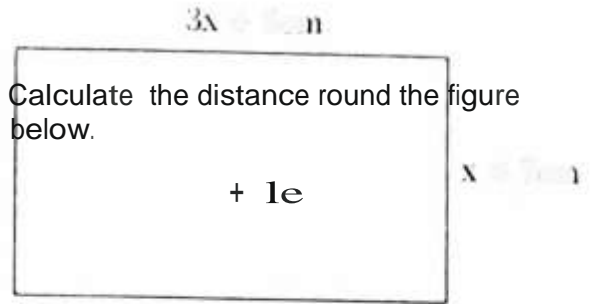
- A. 1
- B. 2
- C. 4
- D. 9

14. What is the product of the L.C.M and

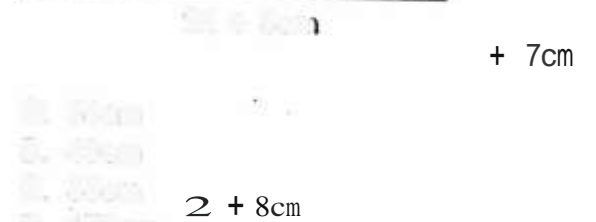
the G.C.D of 6, 12 and 15?

- A. 180
- B. 3
- C. 60

16. Calculate the distance round the figure below.



16. Calculate the distance round the figure below.



- A. 54cm
- B. 49cm
- C. 88cm
- D. 176cm

17. What is the value of:

$$\frac{2}{3} \times \frac{1}{5} \text{ of } 30 + 2 - 6 + \frac{1}{2} \text{ of } 8$$

- A. 0
- B. 4
- C. 2
- D. 1

18. A road measuring 5km on the ground is represented on a map by a line measuring 25cm. Calculate the scale on the map.

- A. 1:20000
- B. 1:2
- C. 1:200
- D. 1:200000

19. David sold a jacket for sh.1080 and made a 10% loss. Find the buying price of the jacket.

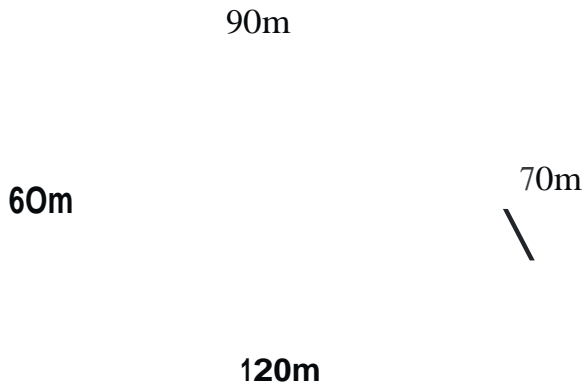
- A. Sh.1560
- B. Sh.960
- C. Sh.1440
- D. Sh.1200

D. 63

15. A meeting started at 2240hrs on Saturday. If it took 35hrs, at what time and day did it end?
- A. 0055hrs Sunday
 - B. 1352hrs Sunday
 - C. 1.52a.m Sunday
 - D. 1.52pm Sunday

Poe 3

20. Calculate the area of the figure below in ha.

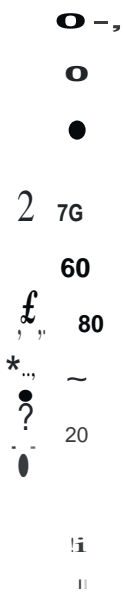


- A. 0.63
- B. 63
- C. 630
- D. 6.3

21. A packet of salt weight 125g. How many such packets will be needed to make a total of 1.2tons?

- A. 96000
- B. 9600
- C. 960
- D. 96

22. The bar graph below shows the number of newspapers a news vendor sold over a week.



23. In a school, each pupil takes a 2dl packet of milk 2 days per week. How many litres of milk will 130 pupils take in 3 weeks?

- A. 1.56
- B. 156
- C. 15.6
- D. 1560

24. Which of the following statements is true about the figure below?

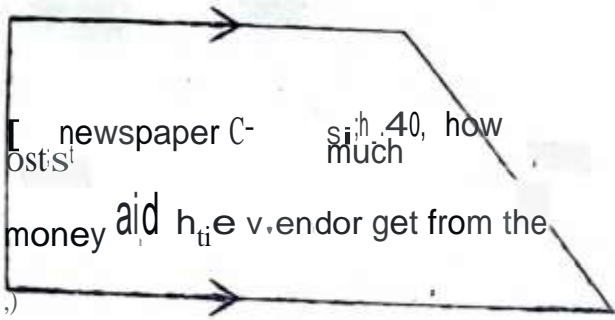
- A. $a + g + f + h = 360^\circ$
- B. $d + e = 180^\circ$
- C. $a + d = g + f$
- D. $b = h$

25. A school planted 2800 tree seedlings in the year 2008. This was a 40% increase on the seedlings planted in the year 2007. How many tree seedlings were planted in 2007?

- A. 4200
- B. 7000
- C. 2000
- D. 1120

26. Peter borrowed sh.40000 from a bank which charged a simple interest at the rate of 5%p.a. If he paid the money back after the end of 5 years, how much did he pay altogether?

- A. Sh.50000



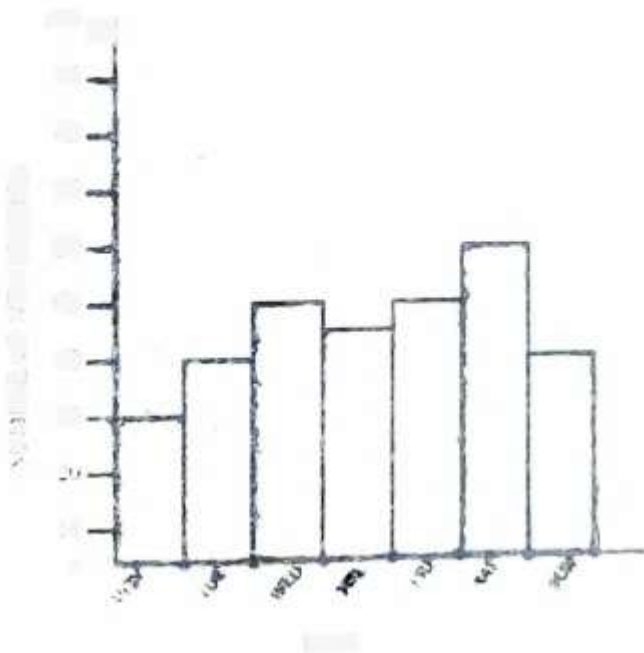
sales from Wednesday to Saturday:

- A. Sh.8400
- B. Sh.7940
- C. Sh.8000
- D. **Sh.8200**

21. A packet of wall wallpaper 10kg. How many such packets will be needed to make a total of 1.25ton?

- A. 125
- B. 1250
- C. 12500
- D. 125000

22. The bar graph below shows the number of mangoes and a total number sold over a week.

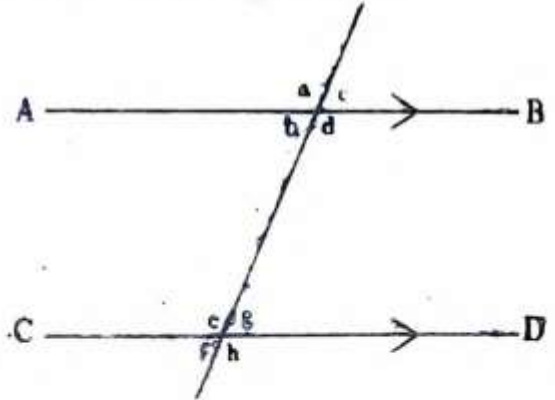


If a newspaper costs sh.40, how much money did the vendor get from the sales from Wednesday to Saturday?

- A. Sh.8400
- B. Sh.7940
- C. Sh.8000
- D. **Sh.8200**

- 9. Sh,8000
- Sh.10000
- B. 1000
- 0. Sh4800

23. Which of the following statements is true about the figure below?



- A. $a + g = 180^\circ$
- B. $d + e = 180^\circ$
- C. $a + d = 90^\circ$
- D. $b = h$

24. A school planted 2000 tree seedlings in the year 2005. What was a 40% increase on the seedlings planted in the year 2007. How many tree seedlings were planted in 2007?

- A. 2800
- B. 3000
- C. 3200
- D. 4100

25. Peter borrowed sh.40000 from a bank which charged a simple interest at the rate of 8% p.a. If he paid the money back after the end of 5 years, how much did he pay altogether?

- A. Sh.20000
- B. Sh.30000
- C. Sh.40000
- D. Sh.50000

27. The figure below represents Joram's homestead. Find its area in Ares.

48m

70m

- A. 33.41
- B. 0.3341
- C. 3341
- D. 3.341

28. Six people can do a piece of work in 12 days. How many more days will it take four people working at the same rate take to complete the work?

- A. 6
- B. 8
- C. 4
- D. 18

29. What is the complement of 37°_4

- A. 53°_1
- B. 52°_4
- C. 142°_4
- D. 143°_4

30. Solve:

$$(16905 - 1500 + 1025 - 1225) \div 5$$

- A. 2631
- B. 3041
- C. 3121
- D. 15205

8. -

32. How many cubes have been used to make the stack below?

- A. 60
- B. 40
- C. 100
- D. 20

33. An inter-school soccer competition started at 3:15pm. After 45 minutes players went for a 15 minutes break. The game took another 55 minutes to end. At what time in the 24hr clock system did the game end?

- A. 1630h
- B. 1655h
- C. 0510h
- D. 1710h

34. The table below shows the number of people who attended an agricultural show one Saturday.

Male adults	Female adults	Children
986	3145	5807

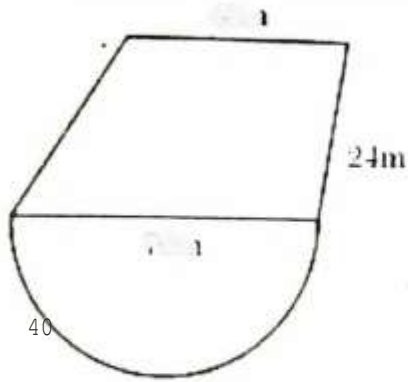
How many more children than adults attended the show?

- A. 4821
- B. 4131
- C. 2662
- D. 1676

- C. 14
- 25
- 33
- D. —

3
5
·
S
·
O
·
L
·
V

27. The figure below represents Amina's homework. Find its area in m^2 .



ACHIEVERS FOCUS EXAMINATION SERIES

- A. 2001
- B. 2,001
- C. 2001
- D. 2,051

28. 50 people can do a piece of work in 10 days. How many more days will it take for people working at the same rate to complete the work?

- A. 5
- B. 6
- C. 4
- D. 15

29. What is the complement of $29\frac{1}{2}^\circ$?

- A. $59\frac{1}{2}^\circ$
- B. $60\frac{1}{2}^\circ$
- C. $142\frac{1}{2}^\circ$
- D. $160\frac{1}{2}^\circ$

30. Solve: $10000 - 1000 + 1000 - 10000 + 5$

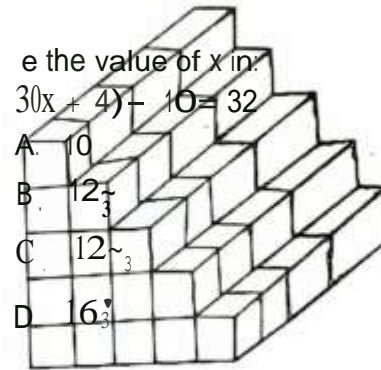
- A. 2001
- B. 2001
- C. 2101
- D. 10000

$$= 3 + 1 - 1 - \frac{1}{2}$$

31. Solve for x in: $3(x + 4) - 10 = 32$

- A. 10
- B. $12\frac{1}{3}$
- C. $12\frac{2}{3}$
- D. $16\frac{1}{3}$

32. How many cubes have been used to make the stack below?



Solve for x in: $3(x + 4) - 10 = 32$

- A. 10
- B. $12\frac{1}{3}$
- C. $12\frac{2}{3}$
- D. $16\frac{1}{3}$

PRINTED BY WEGO PUBLISHERS

Page 5

- A. 55
- B. 50
- C. 100
- D. 20

33. An inter-school cricket competition started at 5:15 pm. After 45 minutes players took a 15 minutes break. The game took another 20 minutes to end. At what time is the 20th clock shown after the game ends?

- A. 10:00
- B. 10:05
- C. 09:50
- D. 10:10

34. The table below shows the number of people who attended an exhibition over one Saturday.

Male adults	Female adults	Children
500	300	200

How many more children than adults attended the event?

- A. 600
- B. 500
- C. 200
- D. 100

35. Solve for x in: $3(x + 4) - 10 = 32$

- A. 10
- B. $12\frac{1}{3}$
- C. $12\frac{2}{3}$
- D. $16\frac{1}{3}$

36. A plot of land is in the shape of a semi-circle of diameter of the plot in metres.



- A. 72m
- B. 44m
- C. 88m
- D. 112m

37. What is the value of:

$$4a + k?$$

$2a \quad f a = 2, k = 5 - a$

- A. 3.25
- B. 6.25
- C. 16.25
- D. 4.75

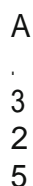
38. Below are properties of a certain quadrilateral.

- (i) Diagonals are equal
- (ii) Two pairs of parallel sides
- (iii) All sides are equal
- (iv) Diagonals bisect at 90°

Which quadrilateral has been described above?

- A. Rhombus
- B. Square
- C. Rectangle
- D. Parallelogram

39. The diagram below shows a vegetable garden in the shape of an isosceles triangle. Calculate the area of the garden.



40. Which of the following is the correct order to write the fractions $\frac{3}{4}, \frac{5}{6}, \frac{2}{5}, \frac{7}{10}$ from the largest to the smallest?

- A. $\frac{5}{6}, \frac{3}{4}, \frac{7}{10}, \frac{2}{5}$
- B. $\frac{5}{6}, \frac{7}{10}, \frac{3}{4}, \frac{2}{5}$
- C. $\frac{7}{10}, \frac{5}{6}, \frac{2}{5}, \frac{3}{4}$
- D. $\frac{2}{5}, \frac{7}{10}, \frac{3}{4}, \frac{5}{6}$

41. Express the ratio 3:5 as a percentage.

- A. 37.5%
- B. 60%
- C. 62.5%
- D. $166\frac{2}{3}\%$

42. The figure below shows a square of side 40cm. A circle is drawn touching all its sides. Calculate the area of the shaded parts. ($\pi = 3.14$)

Um

Ucn

- A. 344cm^2
- B. 1600cm^2
- C. 1256cm^2
- D. 160cm^2

m^2

4

3

.

T

h

e

t

e

m

p

e

r

a

t

u

r

e

o

f

a

p

l

a

c

e

a

t

1

2

:

0

0

n

o

o

n

w

a

s

3

6

.

5

C

.

F

i

n

d

50cm

its new temperature after a drop of
6.9€.

A. 30.6°C

B. 43.4C

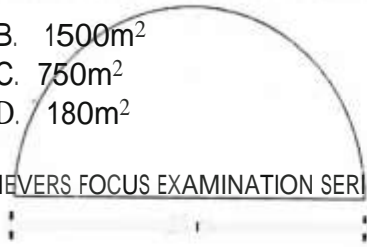
C. 29.6C

D. 42.4°C

48. A plot of land is in the shape of a semi-circle of diameter of the plot is meters.

- B. 1500m^2
- C. 750m^2
- D. 180m^2

ACHIEVERS FOCUS EXAMINATION SERIES



- A. 15m
- B. 30m
- C. 20m
- D. 112m

49. What is the value of:

- $\frac{400 \times 2^3}{2^4} \div 2 = 2, 2 = 2 - x$
- A. 3.25
 - B. 6.25
 - C. 19.25
 - D. 6.75

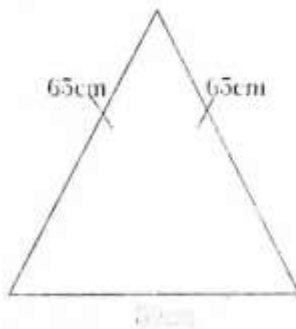
50. Which are properties of a certain quadrilateral?

- (i) Diagonals are equal
- (ii) Two pairs of parallel sides
- (iii) All sides are equal
- (iv) Diagonals meet at 90°

Which quadrilateral has been described above?

- A. Rhombus
- B. Square
- C. Rectangle
- D. Parallelogram

51. The diagram below shows a right-angled triangle in the shape of an isosceles triangle. Calculate the area of the triangle.



- A. 2025m^2
- B. 1925m^2
- C. 1575m^2
- D. 100m^2

52. Which of the following is the correct order to write the fractions $\frac{2}{3}, \frac{4}{5}, \frac{3}{4}, \frac{7}{10}$ from the largest to the smallest?

- A. $\frac{2}{3}, \frac{4}{5}, \frac{3}{4}, \frac{7}{10}$
- B. $\frac{4}{5}, \frac{3}{4}, \frac{7}{10}, \frac{2}{3}$
- C. $\frac{4}{5}, \frac{3}{4}, \frac{2}{3}, \frac{7}{10}$
- D. $\frac{2}{3}, \frac{4}{5}, \frac{7}{10}, \frac{3}{4}$

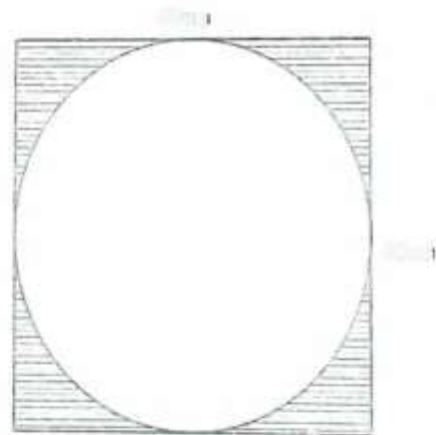
PRINTED BY WEGO PUBLISHER

Page 6

53. Express the ratio 3:5 as a percentage.

- A. 67.5%
- B. 75%
- C. 37.5%
- D. 15%

54. The figure below shows a square of side 40cm. A circle is drawn touching all its sides. Calculate the area of the shaded parts. ($\pi = 3.14$)



- A. 2400cm^2
- B. 1600cm^2
- C. 1200cm^2
- D. 1000cm^2

55. The temperature of a place at 10:00 noon was 30.0°C . What is the temperature after a drop of 6.0°C ?

- A. 36.0°C
- B. 46.0°C
- C. 24.0°C
- D. 42.0°C

44. Lasai bought the following items from a shop.

2kg sugar @ sh.70

1kg cooking fat @ sh.52

3kg salt @ sh.40

2kg packet of maize flour @ sh.56

If she gave the shopkeeper a sh.1000 note, how much balance did she get?

A. Sh.218

B. Sh.424

C. Sh.782

D. Sh.576

45. Nyambura and Winnie shared fish in the ratio 8:5 respectively. If Winnie got 12kg less than Nyambura, how many kgs did the fish weigh?

A. 32

B. 20

C. 44

D. 52

46. Convert $12\frac{1}{2}\%$ as a fraction in the simplest form.

A. $\frac{25}{200}$

B. $\frac{40}{25}$

C. $\frac{2}{8}$

D. $\frac{1}{8}$

47. Multiply 12.25×2.34 correct to 2 decimal places.

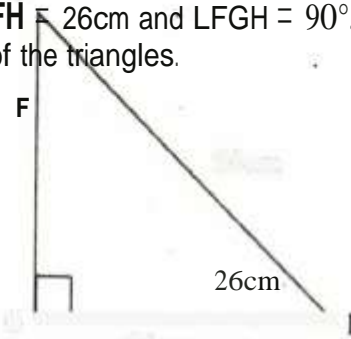
A. 28.6182

B. 28.66

C. 28.67

D. 29.00

48. In the triangle FGH below, $GH = 24\text{cm}$, $FH = 26\text{cm}$ and $\angle FGH = 90^\circ$. Find the area of the triangle.



f. $\frac{1}{2} \times 24 \times 26$

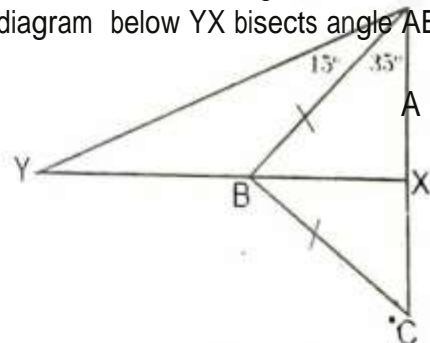
A. 100cm^2

B. 10cm^2

C. 240cm^2

D. 120cm^2

49. What is the size of angle AYB in the diagram below YX bisects angle ABC.



A. 35°

B. 40°

C. 55°

D. 90°

50. Find the square root of $\sqrt{0.0625}$

A. 0.25

B. 0.5

C. 0.025

D. 0.05

