Mathematics

Topical Questions

P.5

MATHEMATICS PRIMARY FIVE TOPICAL GUIDING QUESTIONS

TOPIC 1: SETS

1. What is a set?

2. Draw an empty set symbol.

3. Given than K = {z, e, r, o}. Find n(K)

4. If D = {m, a, n, g, o} E = {o, r, a, n, g, e}

   Find (i) $D \cap E$

   (ii) D'

   (iii) $n(D \cup E)$

5. What is the probability of tossing a coin and a head shows up?

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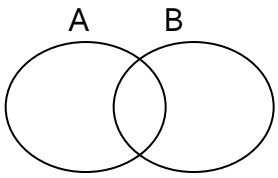
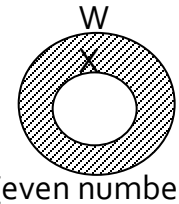
6. Shade A – B



7. Name the set symbol.

$\not\subset$ _____

8. Describe the shaded region.



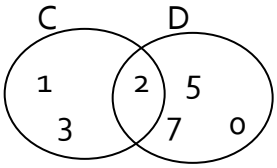
9. Set F = {even numbers less than 10}

List down the members of set F.

10. All dogs (D) are animals (A). Show this information on a venn diagram.

Section B

11. Use the venn diagram below to answer questions



(a) How many members are in set D'

(b) Find (i) $n(C \cap D)$

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(ii) $n(C \cap D)'$

(c) How many sub sets are in set D only?

12. (a) Given that F = {Prime numbers from 2 to 11}
G = {Even numbers less than 10}

(i) Show the above information on a venn diagram.

(ii) Find (a) $(F \cup G)$

(b) $n(G - F)$

13. In a box there are 5 blue pens, 3 red and 7 black pens. If a pen is picked at random, what is the probability of picking;

(a) a black pen

(b) a red pen

(c) a blue pen

14. If a die is tossed once, what is the probability of;

(a) a prime number showing up?

(b) a number less than 5 showing up?

(c) a 3 showing up?

TOPIC 2: WHOLE NUMBERS

1. Write 312,015 in words.

2. Express 139 in roman numerals.

3. What is the place value of 3 in 3207?

4. Write 2435 in expanded form.

5. Find the value of 3 in 3201.

6. Write in figures: One million one thousand one.

7. Expand 3463.4 using powers.

8. Round off 438 to the nearest hundreds.

9. Convert XLIV in Hindu Arabic numerals.

10. Grandfather is 99 years old. Express her age in Roman numerals.

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11. Find the number that has been expanded to give

$(7 \times 10^4) + (2 \times 10^2) + (8 \times 10^0)$

12. Show 4203 on an abacus.

13. Given digits 4 6 1 2.

(a) Form the (i) biggest number

(ii) smallest number

(b) Find the sum of the largest and smallest numbers formed.

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(c) Find the difference between the largest and smallest numbers formed.

TOPIC 3: OPERATION ON NUMBERS

1. Add: 14,875 + 6394

2. Kagimu reads a story of 145 words. How many words will he read if he reads 5 such stories?

3. Divide 3535 by 5

4. Work out:
   3 6 1 7
   x 3 2

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5. Change 342_{five} to base ten.

6. The difference between two numbers is 305. If the small number is 267, find the bigger number.

7. Workout: (a) 3 + 2 = _____ (finite 4)

(b) 3 – 5 = _____ (finite 7)

8. The average weight of 3 boys is 53kg. Find their total weight.

9. What is the place value of 2 in 234_{five}.

10. Find the average of 8, 3, 0, 2, 7

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11. Given the following: 4, 6, 4, 10

Find the; (a) mode

(b) mean

(c) range

(d) median

12. (a) Add: $2\ 3\ 1_{five}$ + $2\ 2_{five}$

(b) Subtract: $2\ 3\ 4_{seven}$ - $2\ 5_{seven}$

TOPIC 4: PATTERNS AND SEQUENCES

1. Which of these is divisible by 3?

$65,\ 72,\ 83,\ 94$

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2. Find the product of the next two missing numbers.

2, 3, 5, 7, ___, ---

3. What is the square of 7?

4. Find the square root of 121.

5. List all factors of 36.

6. Find the next number in the sequence.

5, 6, 8, 11, 15, ____

7. Workout: (½ of 18) + (¼ of 16)

8. What is the GCF of 32 and 48.

9. Use <, > or = to complete.

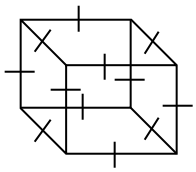
$(3^0 + 3^2)$ _____ $(5^2 - 5)$

10. Divide 3600 by 100.

11. If $y^2 = 81$, find the value of y.

12. Find the LCM of 16 and 24.

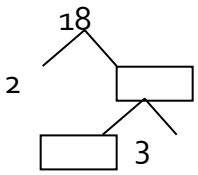
13. Use the figure below to answer questions that follow.



(a) Name the figure.

(b) Find the volume of the figure.

14. Find the missing numbers.



15. Compare using **>, <** or **=** to complete correctly.

(a) 213 _____ 312

(b) ¾ of 16 _____ ⅔ of 18

(c) 2m _____ 150cm

(d) XCV _____ C

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TOPIC 4: PATTERNS AND SEQUENCES

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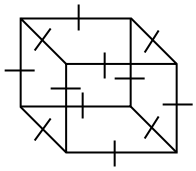

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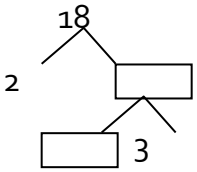

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(c) 2m _____ 150cm

(d) XCV _____ C

TOPIC 5: FRACTIONS

1. Given $3\ \frac{2}{4}$, use denominator, whole number and numerator to complete.

(a) 2 is a _____

(b) 4 is a _____

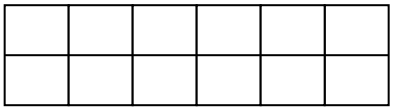
(c) 3 is a _____

2. Express $3\ \frac{2}{4}$ as an improper fraction.

3. What is ¾ of 20?

4. A driver covered ⅓ of his journey of 72km. What distance did he cover?

5. Find the missing number. $^{3}/_{5} = {}^{12}/$



6. Shade ¾

7. Write $^{32}/_{3}$ as a mixed fraction.

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8. Use >, < or = to compare.

$^{18}/_{24}$ ☐ $^{6}/_{8}$

9. Workout:

(a) ½ + ⅓

(b) $3\frac{2}{3} + 1\frac{2}{3}$

(c) $4\frac{5}{6} - 1\frac{1}{3}$

10. On a farm of 30 animals, $^{3}/_{5}$ of them are cows and the rest are goats.

(a) How many cows are on the farm?

(b) How many goats are on the farm?

(c) What is the fraction of goats?

(d) How many more cows than goats are on the farm?

11. In a P.5 class of 50 pupils, $^{3}/_{10}$ of them were absent. The rest were present.

(a) What fraction of the class was present?

(b) How many pupils were absent?

(c) How many more pupils were present than absent?

12. Arrange these fractions in descending order.

$^{5}/_{6}$, $^{2}/_{3}$, $^{1}/_{4}$, $^{3}/_{4}$

14. Compare using >, < or =

(a) $\frac{3}{4}$ _____ $\frac{6}{8}$ (c) ⅓ _____ ¼

(a) $\frac{2}{3}$ _____ $\frac{5}{6}$

TERM TWO MATHEMATICS

TOPIC: FRACTIONS

1. Add: 5/12 + 1/12

2. Express 13/13 as a mixed fraction

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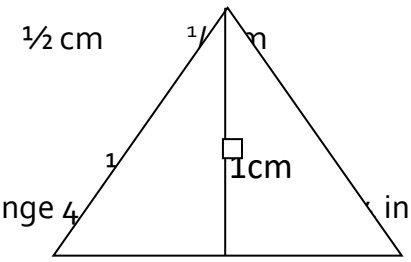
3. What is 2/3 of 18?

4. Simplify: 2 1/3 – ½

5. Express ½ kg as grams.

1. Change 2 4/5 as an improper fraction.

7. Find the perimeter of the figure below.



8. Arrange 4 in ascending order.

9. Work out

a) ¼ of (20-4)

b) (10 + 30) of $^{1}/_{5}$

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10. Simplify: 5/6 – ½ + 1/5

11. How many half litre bottles of milk can be got from a container of 20 litres?

12. Multiply. $^{2}/_{3}$ X ½

13. Use >, < or = to compare correctly.

a) ½ ☐ $^{4}/_{8}$

b) $^{1}/_{3}$ ☐ ½

c) ¾ ☐ $^{6}/_{12}$

14. Arrange the following fractions as instructed.

a) ½, ¼, 1/3 (in ascending order)

b) 5/6, ½, 2/3 (descending order)

15. In a class of 48 pupils, ¾ of them eat meat and the rest eat fish.

a) What fraction of the class eats fish?

b) How many children eat meat?

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c) How many more children eat meat than fish?

TOPIC 2: MEASURES (MONEY)

1. Add: shs. 2500 + 1750.

2. 1 school bag costs sh. 1500. Find the cost of 5 similar school bags.

3. 5 books cost 2500/=. How much will much will Mary pay for 3 similar books?

4. The cost of 2 pencils is sh. 800. What is the cost of 6 similar pencils?

5. Joan bought a radio at shs. 50,000/= and sold it at a loss of shs. 5000. What was the selling price?

6. Bony went to a market with sh. 8000 and bought the following items;
3 mangoes at sh. 800 each
A heap of four oranges at sh. 2000
3 apples at shs. 1200 each
a) How much did he spend altogether?

b) Find his change.

7. Katongole bought a T.V at shs. 45500 and later sold it at shs. 500.00/=. How much profits did he make?

8. It costs sh. 4000 to move from Kampala to Jinja and shs. 7000 from Jinja to Mbale.

a) How much will one pay for the journey from Kampala to Mbale?

b) If 5 people are travelling from Kampala to Mbale, how much will they pay altogether?

9. Okoth sold a goat at shs. 85000. She made a loss of 13,000. How much did she buy the goat?

10. **Complete the shopping list below**

ITEM	QUANTITY	UNITCOST	TOTAL
Sugar	4kg	Shs. 2400	Shs……
Bread	……loaves	Shs. 3500	Sh 7000
Salt	500 gms	Sh……	Sh.400
Grand total			Shs……

b) If Kalungi went with a note of sh. 20,000. What was the balance he received after paying?

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Topic: TIME

12. Tell the afternoon time shown on the clock face below.

13. It started raining at 2:20am and stopped at 8.10am. How long did rain take?

14. A forty minutes lesson started at 8:10am. At what time did it end?

15. Find the distance a driver covers in 15 kilometers per hour for 3 hours.

16. A cyclist covered a journey of 100km at a speed of 40km/hr. How long did it take him?

17. Alupo travelled from Kitgum to Luweero a distance of 616 km in 7hours. Find the average speed at which she was travelling.

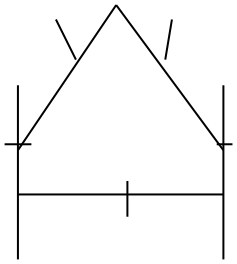
Topic: LENGTH, MASS AND CAPACITY

18. How many ¼ litre bottles are in a 2litre jerrycan?

19. Okoth's baby was born with 5kg. How many grams was it?

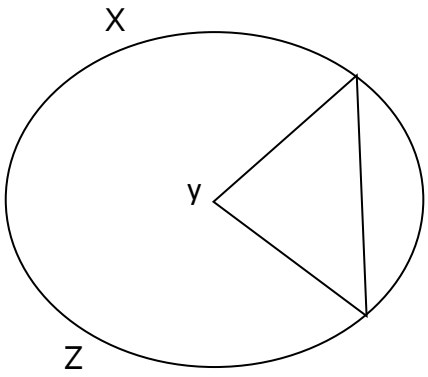
20. Express 4.75 metres in cm.

21. Find the perimeter of figure below.



22. The area of a rectangle is 42cm^2. Calculate its perimeter if the length of the rectangle is 7cm.

23. Study the figure below and answer questions that follow;



a) Name the lines

(i) FN -_____

(ii) XZ _____

b) If the diameter of the circle is 8cm. Find its radius.

THEME: MEASUREMENTS

TOPIC ONE: MONEY

1. A book cost shs.300 find the cost of four similar books.

2. Mugisha bought a bull at shs.250000 and later sold it at shs.320000. how much profit did he make?

3. 5 books cost shs.2000, find the cost of 8 similar books

4. A man went to the market with shs.20000 and bought the following items
   2kg of sugar at shs.3200 per kg
   ½ a litre of cooking oil at shs.4000 a litre
   4kg of Irish potatoes at shs.6000
   a) How much money did the man spend?

   b) How much money did the man remain with

5. Musa sold a pair of trousers at shs.16000 making a profit of shs.4000. How much did he buy the pair of trousers?

6. The table below shows transport charges by bush between different towns per person
   a) How much will 3 people pay to travel from Mukono to Kampala?

   b) Wasswa travelled from Kampala to Masaka via Mpigi, how much money did he pay for the whole journey?

   c) John his wife and their three children traveled from Kampala to Mpigi. How much money did they pay altogether?

   d) If the bus form Bombo to Kampala carried 25 people, how much money

did the conductors collect altogether?

7. The bill table below show how Martha spent her money

Item	**Quantity**	**Unit cost**	**Amount**
Books	2dozens	Shs._____	Shs.12000
Pens	1 ½ doz	Shs.4000 per doz	Shs._____
Rulers		Shs.600 each	Shs.2400
Rubbers	3 rubbers	Shs._____	Shs.2250
Total expenditure			Shs._____

a) Complete the above bill table correctly
b) If she remained with shs.2350 how much money did she have at first?

8. A shirt cost shs.4000, how many shirts can a person buy with shs.32000?

9. Calvin bought a mathematical set at shs.2500 and later sold it at a loss of shs.500. How much did he sell the mathematical set?

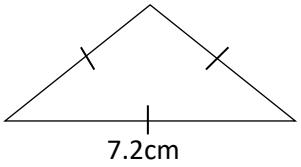
10. A kilogram of salt cost shs.800. How much can a person pay for 750g of salt?

11. A shopkeeper made a profit of shs.7600 after selling a box of milk at 39200/=. What was the buying price for the box of milk?

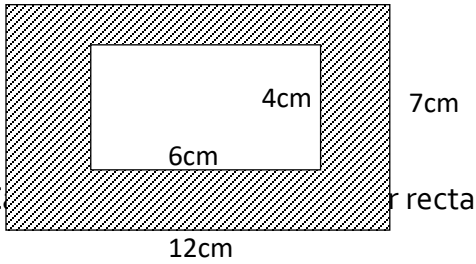
TOPIC TWO: LENGTH, MASS AND CAPACITY

1. Change 2metres to centimeters

2. Find the perimeter of the figure below



3. Study the figure below and use it to answer questions that follow



a) C r rectangle.

b) Workout the area of the inner rectangle.

c) What is the area of the shaded part?

4. Express 4.2km in metres

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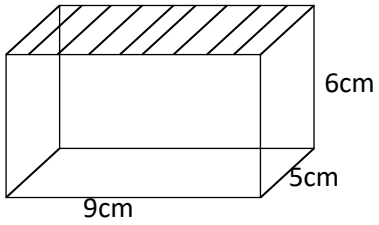
5. Subtract:

	Kg	G
	4	427
−	2	609

6. Study the cuboid below and use it to answer questions that follow



a) Count its number of
(i) vertices (ii) edges (iii) faces

b) Calculate the area of the shaded part.

c) Find its volume.

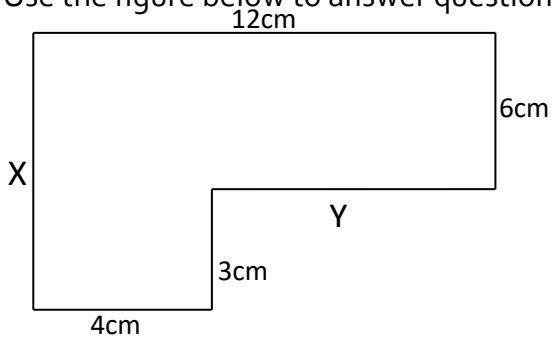
d) Workout its total surface area.

7. The perimeter of a square playground is 36cm
a) Find its sides.

b) Workout its area.

c)

8. Use the figure below to answer questions that follow



a) Find the value of (i) X (ii) Y

b) Find the perimeter of the above figure.

c) Workout its area.

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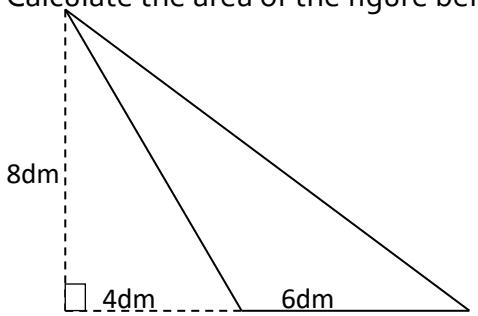
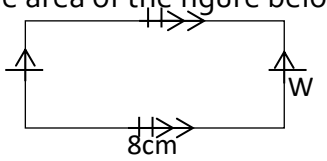
9. Calculate the area of the figure below



10. The area of the figure below is 40cm3

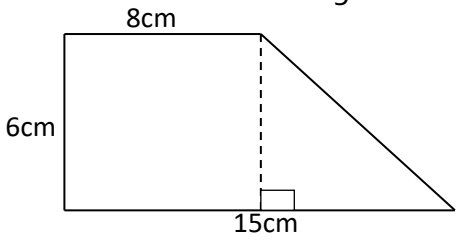


a) Find its width.

b) Workout its perimeter.

11. Change 2000ml into litres

12. Find the area of the figure below.



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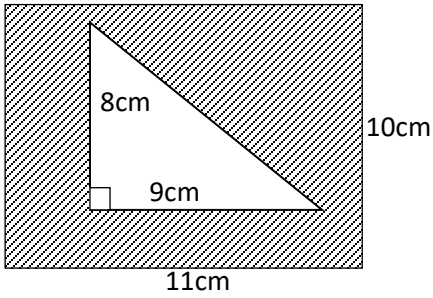
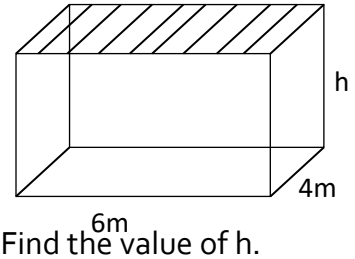
13. Find the area of the shaded part



14. The volume of the cuboid below is $120m^3$

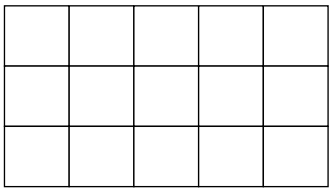


a) Find the value of h.

b) Workout its total surface area.

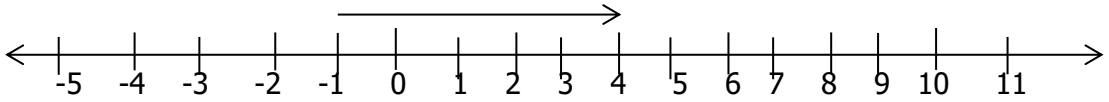
c) Calculate the area of the shaded part.

15. What is the area of the figure below



TOPIC THREE: INTEGERS

1. What integer has been represented on the number line below



2. Arrange the integers below in descending order; -3, 3, 0, 2, 1, -1, -4

3. Compare the following integers correctly using >, < or =

a) $^{-}3$ ____ 3

b) $^{-}7$ ____ $^{-}6$

c) 0 ____ $^{-}2$

4. Workout the following without using a number line

a) $^{-}2 + {}^{+}6$ (b) $3 - {}^{+}7$ (c) $4 \times {}^{-}6$

5. Use a number line to work out the following

a) $2\ {}^{-}3 + {}^{+}6$

b) $3 \times {}^{-}4$

c) $^{+}3 + {}^{-}7$

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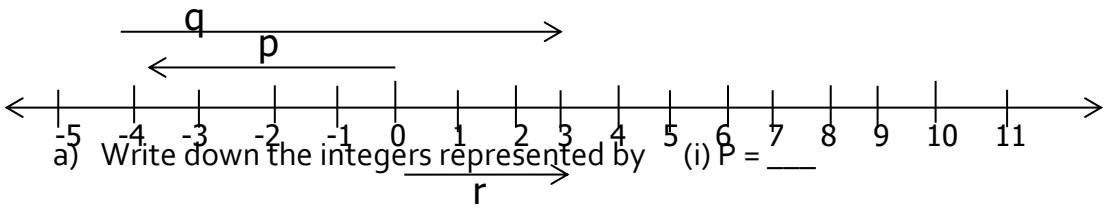
6. Find the median of the integers below; 0, -3, 4, -3, -2, 5, -5

7. Use the number line below to answer questions that follow

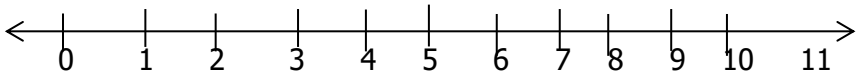


a) Write down the integers represented by (i) P = ___

(ii) q = ___ (iii) r = _____

b) Write down the mathematical statement shown on the number line below

8. Use the number line below to work out: 2 x 4

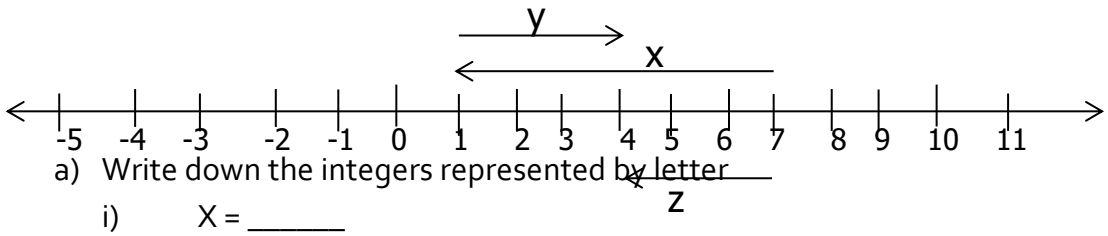


9. Find the range of the integers below; -2, 0, 4, -5, 3

10. Simplify: $^{-}3 - {}^{-}3$

11. Workout the inverse of $^{+}6$

12. Use the number line below to answer questions that follow.



a) Write down the integers represented by letter

i) X = _____

ii) Y = _____

iii) Z = _____

b) Write down the mathematical statement shown on the number line above.

13. Aminah jumped four metres backwards and then nine metres forward. How far is Aminah now from her original place?

TOPIC FOUR: ALGEBRA

14 a)Simplify 2b – b + 3b

b)Solve P – 4 = 5

15 Given that x = 2, y = 3 and z = 4. Find the value of;

a)x + y + z

b) xyz

c)xy + z

d) yz/(x+z)

16. I think of a number, add six to it the answer is 13. What is the number?

b)Solve 2y + 4 = 16

17)Collect like terms;

a)2x + 4y + 3x + y

b) 4m + 2n – m + n

c) 7k – 2p + k + 6p

18 The area of a rectangle is 60cm2. Its length is 12cm.

a)Find its width

b)Workout its perimeter.

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19 Given that x2 = 36, find the value of x

20 Study the figure below and use it to answer questions that follow

a)Find the value of x.

b)Find the width of the rectangle.

C) Calculate its area.

d) Workout its perimeter.

21. Solve the following equations

a) 2x + 3x = 20

c) y/2 =8

d) 4x – 2 + x = 8

e) 3n – 4 = n

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f) $3x - 2 - 2x = 10$

22. The volume of a cuboid below is 210cm3

a) Find the value of h

b) Calculate the area of the shaded part.

c) Workout its total surface area.

23. a) What number when divided by three gives 5 as the answer?

b) The perimeter of a rectangle is 26 dm.
c) Find the width if the length is 7dm

d) Calculate its area.

24 .The area of a square garden is 144m2

a) Find the length of its sides.

b) Workout the total distance round the garden.

c) Find the missing number 2/3= /12

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