AI TONG SCHOOL

2012

SEMESTRAL ASSESSMENT 2

PRIMARY 5

MATHEMATICS
Paper 1
(Booklet A and B)

DURATION : 50 min

DATE : 23 October 2012

INSTRUCTIONS
Do not open the booklet until you are told to do so.
Follow all instructions.
Answer all questions.
You are <u>not</u> allowed to use a calculator.

Name   : _____ (   )

Class   : Primary 5_____   Marks:

Paper 1		40
Paper 2		60
Total		100

Parent's Signature :_____

Date   :

75

Paper 1
Booklet A
Questions **1** to **10** carry 1 mark each. Questions **11** to **15** carry 2 marks each.
For each question, four options are given. One of them is the correct answer.
Make your choice (1, 2, 3 or 4). Shade the oval (1, 2, 3 or 4) on the Optical Answer
Sheet.   (20 marks)

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1   In 2 879 365, the digit '8' is in the _____ place.

    (1)   thousands

    (2)   ten thousands

    (3)   hundred thousands

    (4)   millions

2   What is the value of $(36 - 6 \div 3) + 20 - 5 \times 3$?

    (1)   15

    (2)   39

    (3)   55

    (4)   75

3   Which fraction is smaller than $\dfrac{7}{9}$ but greater than $\dfrac{1}{2}$?

    (1) $\dfrac{1}{3}$

    (2) $\dfrac{7}{8}$

    (3) $\dfrac{6}{11}$

    (4) $\dfrac{5}{12}$

4   Express 18 seconds as a fraction of 3 minutes.

(1) $\dfrac{1}{6}$

(2) $\dfrac{1}{10}$

(3) $\dfrac{3}{10}$

(4) $\dfrac{3}{50}$

5   Matt's savings is $\dfrac{3}{5}$ of Jenny's savings. Find the ratio of Jenny's savings to their total savings.

(1)   2 : 5
(2)   3 : 5
(3)   3 : 8
(4)   5 : 8

6   Find the sum of 9 hundreds, 9 hundredths, 9 tens and 9 tenths.

(1)   990.990
(2)   910.910
(3)   909.090
(4)   900.909

7   Express 0.138 as a percentage.

(1)   0.138 %
(2)   1.38 %
(3)   13.8 %
(4)   138 %

77

8   The average of two numbers is 80. If one of the numbers is 64, what is the other number?
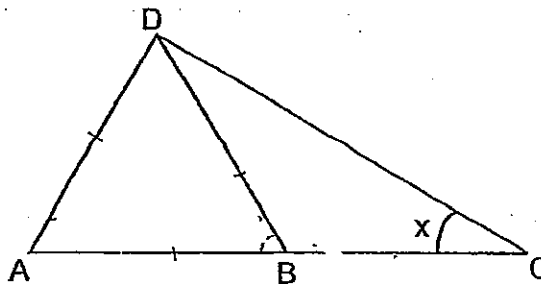
(1)   16
(2)   72
(3)   96
(4)   144

9   In the figure below, WX is parallel to YZ. WY and PZ are straight lines. Which of the following statements is incorrect?
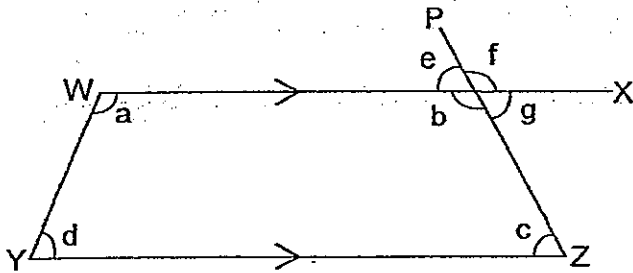
(1) $\angle e = \angle g$
(2) $\angle c = \angle g$
(3) $\angle a + \angle c = 180°$
(4) $\angle c + \angle f = 180°$

10   ABC is a straight line. B is the midpoint of AC. Triangle ABD is an equilateral triangle and Triangle BCD is an isosceles triangle. Find $\angle x$.

(1)   15°
(2)   30°
(3)   45°
(4)   60°

11 Allen had 4 storybooks that cost $22 in total. He bought 2 new storybooks and the average cost of the 6 storybooks became $6.50. What was the average cost of the 2 new storybooks bought?

(1) $5.50

(2) $8.50

(3) $13.50

(4) $17.00

12 The ratio of the number of stamps Kim had to the number of stamps Mandy had was $1 : 6$ at first. After Mandy gave away $\frac{1}{2}$ of her stamps and Kim bought another 30 stamps, the two girls had an equal number of stamps. How many more stamps did Mandy have than Kim at first?

(1) 15

(2) 45

(3) 75

(4) 90

13 In the figure below, not drawn to scale, ABCD is a trapezium and BX is a straight line. Find $\angle CBX$.
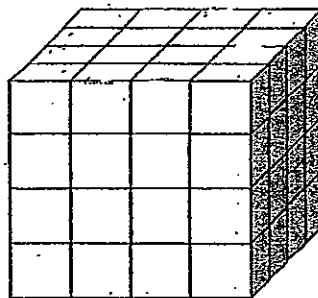
(1) 28°

(2) 34°

(3) 45°

(4) 56°
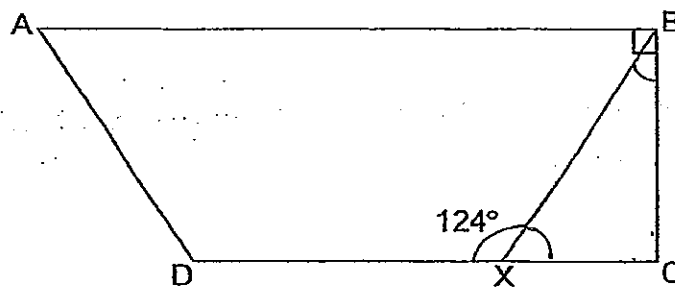
14 In the figure below, the area of triangle EJK is $\frac{1}{8}$ the area of the unshaded part of the rectangle EFGH. Find the length of JF.
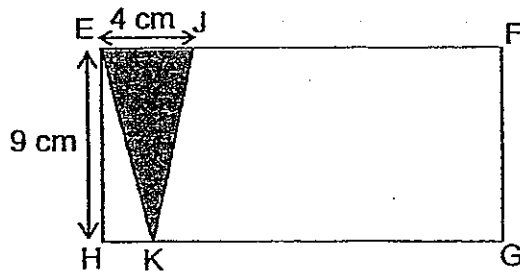
(1)   12 cm

(2)   14 cm

(3)   16 cm

(4)   18 cm

15 Max glued 64 identical cubes together to form a large solid cube. He then painted the entire large cube green. How many cubes have at least 2 of their faces painted green?

(1)   24

(2)   32

(3)   40

(4)   48

Questions 16 to 25 carry 1 mark each. Write your answers in the spaces provided.
For questions which require units, give your answers in the units stated. (10 marks)

16   Write three million, seven hundred and two thousand, four hundred and one in numerals.

Ans:_____

17    $238 \times 89 = 199 \times 89 + \boxed{} \times 89$
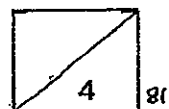
Ans:_____

18   Write the fraction that is exactly midway between $\frac{2}{5}$ and $\frac{3}{5}$.
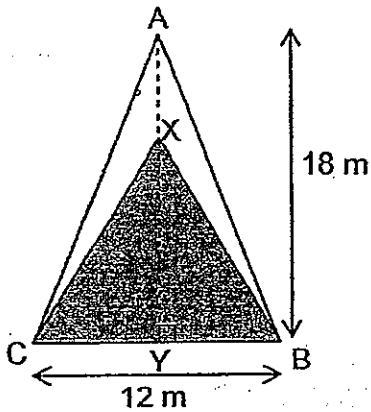
Express your answer in the simplest form.

Ans:_____

19   A ribbon $\frac{5}{8}$ m long is cut into 6 equal pieces. What is the length of each piece of ribbon?

Ans:_____ m

4

20   In the figure below, not drawn to scale, the length of XY is $\frac{2}{3}$ the length of AY.
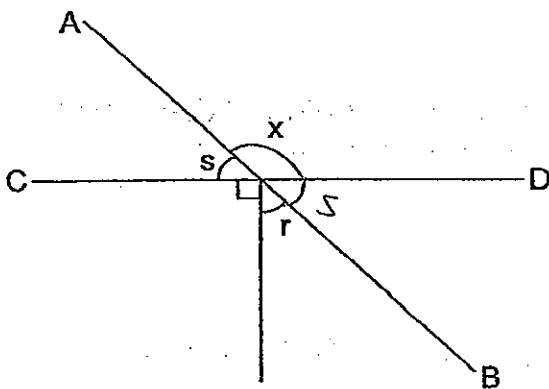
Find the area of triangle CXB.
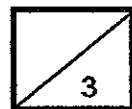
A

X

18 m

C — Y — B

12 m

Ans: _____ m^2

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21   Michelle bought a television set at 10% discount. The price of the television set before the discount was $3600. How much did she pay for the television set?
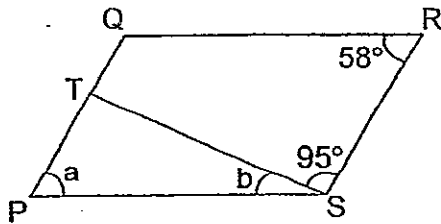
Ans: $ _____

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22   The figure below is not drawn to scale. AB and CD are straight lines and $\angle r = \angle s$. Find $\angle x$.

A

x

C — s — D

r

B

Ans: _____ °

3

23 In the figure below, not drawn to scale, PQRS is a parallelogram and ST is a straight line. Find ∠ a + ∠ b.
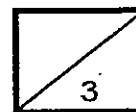

_____ °

_____

24 A 2-digit number has 8 as a factor. The difference between the 2 digits is 3. What is the number?

Ans: _____

_____

25 There are 330 Primary 5 pupils in a school. 70% of the pupils wear spectacles. How many pupils do not wear spectacles?

Ans: _____

83

Questions **26** to **30** carry 2 marks each. Show your working clearly in the space provided for each question and write your answers in the spaces provided. For questions which require units, give your answers in the units stated. **(10 marks)**

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26 Mr Lee drove 12.4 km on Monday. He drove another 9050 m on Tuesday. How many kilometres did he drive altogether in the two days?

_____ km

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27 A rectangular container measuring 30 cm by 40 cm by 12 cm is $\frac{1}{4}$ filled with water. How much more water is needed to fill the container to its brim?
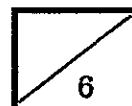
Ans: _____ cm^3
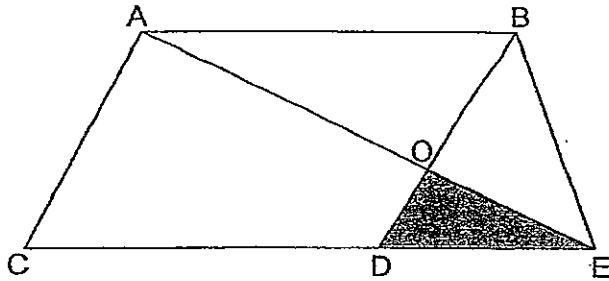
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28 The parking fee of a car park is as follows:

First hour	$2.40
Every additional $\frac{1}{2}$ h or part thereof	$1.50

Mrs Lim parked her car from 3.15 p.m. to 5.55 p.m. How much did she pay for the parking?

Ans: $_____

6

29   AB and CE are parallel lines. CE is thrice as long as DE. The area of triangle
      ACE is 480 cm². The area of triangle BOE is 112 cm². What is the area of the
      shaded triangle?

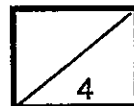   Ans: _____cm²

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30   Mei Mei arranged 120 red and blue beads in a circle to make a necklace. There
      were 4 red beads between 2 blue beads. How many blue beads did she use?

                                                              Ans: _____

                                    End of Paper
                          — CHECK YOUR WORK CAREFULLY —   ┌──────┐
                                                                                 │ ╱   │
                                                                                 │╱   4 │
                                                                                 └──────┘

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AI TONG SCHOOL

2012

SEMESTRAL ASSESSMENT 2

PRIMARY 5

MATHEMATICS
Paper 2

DURATION : 1 h 40 min

DATE : 23 October 2012

INSTRUCTIONS
Do not open the booklet until you are told to do so.
Follow all instructions.
Answer all questions.
You are allowed to use a calculator.

Name : _____ ( )

Class : Primary 5_____   **Marks:** | Paper 2 | /60 |

Parent's Signature :_____

Date   : _____

Questions **1** to **5** carry 2 marks each. Show your working clearly in the space provided for each question and write your answers in the spaces provided.
For questions which require units, give your answers in the units stated.   (10 marks)

1   Mary has $\frac{4}{7}$ of the number of stamps that Aini has. If they have 165 stamps altogether, how many stamps does Aini have?

Ans: _____

2   The original price of a dress was $60. A 20% discount was given to Suling. How much did Suling pay for the dress if she had to pay a 7% GST on the discounted price?

Ans: $_____

3   Ben scored 84 marks for English, 83 marks for Chinese and 80 marks for Science. How many marks must he score for Mathematics if he wants to score an average of 85 marks for the four subjects?

Ans: _____

87

6
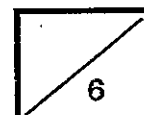
4   In the figure below, not drawn to scale, MQ, RS, ST and TU are straight lines. Find ∠TQP.

R

T 292°

76° N   P

M   Q

S

288°

U
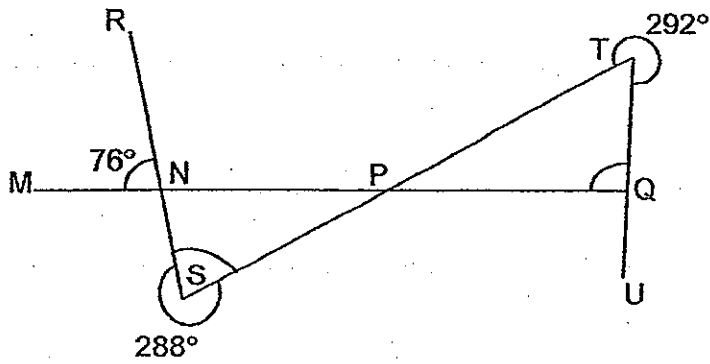
Ans: _____ °

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5   Mrs Gopal baked 72 muffins. She sold $\frac{2}{3}$ of the muffins at $2.40 each and the rest of the muffins at half-price. How much money did she collect altogether?

Ans: $ _____
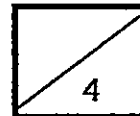
For questions 6 to 18, show your working clearly in the space provided for each question and write the answers in the spaces provided.
The number of marks available is shown in the brackets [ ] at the end of each question or part-question.
(50 marks)

6   Alex and Benson spent a total of $582. Benson and Carman spent $324 altogether. Alex spent four times as much as Carman. How much did Benson spend?

Ans: _____ [3]

7   Denise and Ryan share 204 marbles in the ratio 1 : 5. Then, Ryan has green and yellow marbles in the ratio 6 : 11. How many more yellow marbles than green marbles does Ryan have?

Ans: _____

6
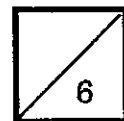
89

8 (a) In the space below, draw and label the trapezium WXYZ in which
       (i)   ∠WXY = 85°
       (ii)   XY = 5 cm
       (iii) ZY = 6 cm

       The line WX has been drawn for you.   [2]

   (b) Measure and write down the length of WZ.
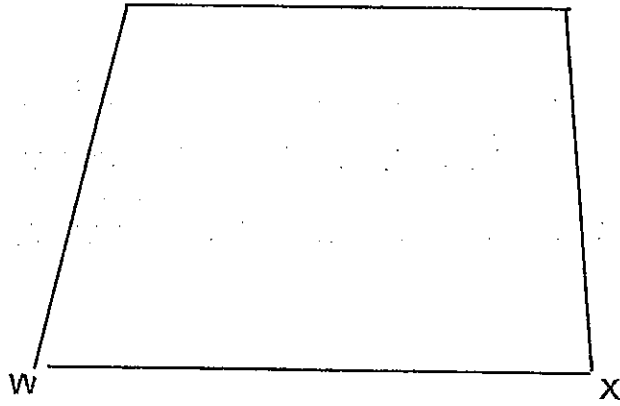
                                    Ans : (b) _____ [1]

_____

9   $\frac{1}{4}$ of Kelly's money is equal to $\frac{2}{5}$ of Daniel's money. The difference in the amount of
    money they had is $171. What is the total amount of money that Kelly and Daniel
    have?

                                    Ans: _____ [3]

_____

6
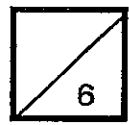
10 In the square below, the unshaded area is 241 cm^2. Find the perimeter of the square.
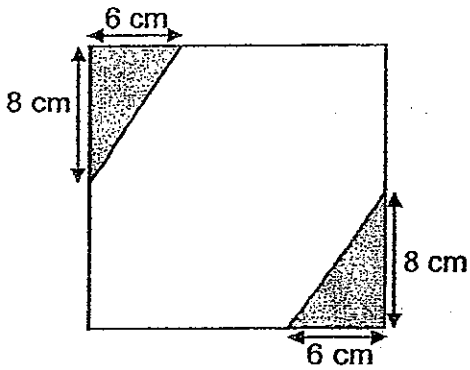
Ans: _____ [3]

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11 In the figure, not drawn to scale, triangle ADE is an isosceles triangle within triangle ABC. Find ∠ACB.
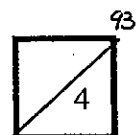

Ans: _____

6

9l
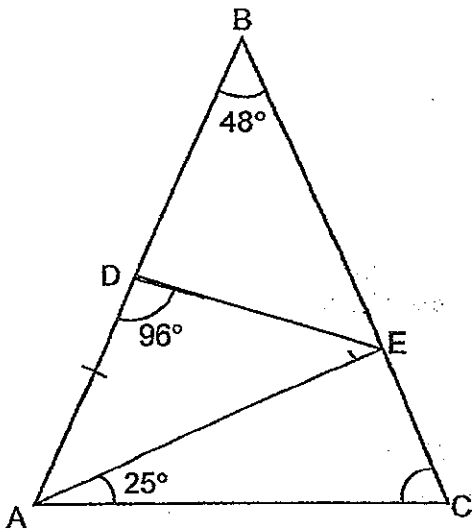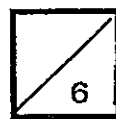
12 Jamie spent $6 less than $\frac{4}{7}$ of her money on a dress. She spent $6 more than $\frac{1}{2}$ of her remaining amount of money on a blouse. If she had $24 left, how much money did she have at first?
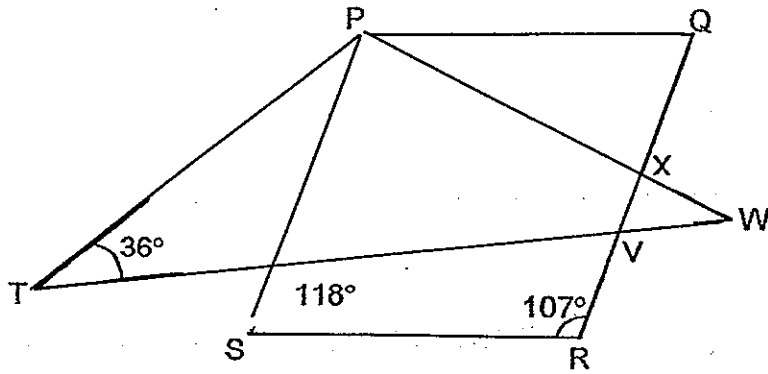
Ans: _____ [4]

4

13   58% of the fruits at a stall are oranges. The rest are apples and pears in the ratio 3 : 4. There are 240 more oranges than apples. Find the total number of fruits at the stall.

Ans: _____ [4]

14   In the figure below, not drawn to scale, PQRS is a rhombus and PTW is an isosceles triangle. Find ∠PXV.


Ans: _____ [4]
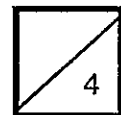
15 Mr Bala spent $760 of his salary on a television set. He saved $500 of his salary and the remaining money was spent on household bills and transport in the ratio 3 : 2. If he spent $\frac{1}{6}$ of his salary on transport, how much was his total salary?
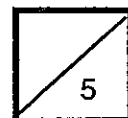
Ans· _____ [5]
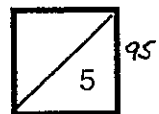
16   In the figure below, the ratio of the area of the rectangle to the area of the triangle is 3 : 5. 25% of the rectangle overlaps with the triangle. The area of the rectangle is 552 cm². Find the total area of the unshaded parts of the figure.
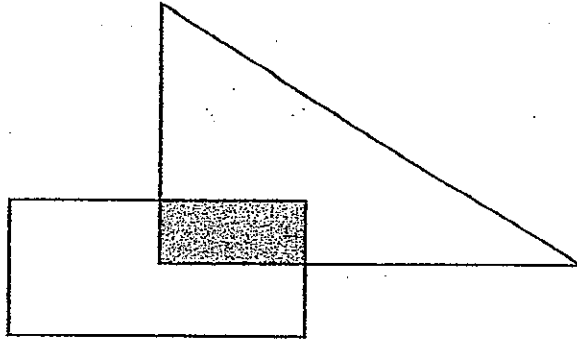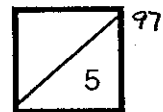

Ans: _____ [5]

5

17   Mrs Kee baked a total of 250 cookies for the pupils in her class. There were more boys than girls in the class. She gave each boy a number of cookies equal to the number of boys in the class and each girl a number of cookies equal to the number of girls in the class. There were 22 pupils in the class.

(a)   How many girls were there in the class?

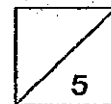(b)   How many cookies did the boys receive altogether?

Ans: (a) _____ [3]

(b) _____ [2]

18   Mr Goh had 840 erasers and rulers in his shop. He sold 50% of the erasers and 75% of the rulers. He was left with 240 erasers and rulers. How many erasers did he have at first?

Ans: _____ [5]

SCHOOL : AITONG

SUBJECT : PRIMARY 5 MATHEMATICS

TERM : SA2

1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
	2	3	2	4	1	3	3	3	2	2	3	2	2	2

16)3702401   17)39   18) ½   19)5/48m   20)72m2

21)$3240   22)135°   23)85°   24)96   25)99 pupils

26)9050m = 9.05km
$$12.4km + 9.05km = 21.45km$$

27)4units − 1unit = 3units
$$30cm \times 40cm \times 12cm = 14400cm3$$
$$14400cm3 \div 4 \times 3 = 10800cm3$$

28)$2.40 + $1.50 + $1.50 + $1.50
+ $1.50 = $8.40

29)480cm2 ÷ 3 = 160cm2
$$160cm2 − 112cm2 = 48cm2$$

30)24 blue beads

aper 2

)4units + 7units = 11units
165 ÷ 11units = 15
15 × 7units = 105 stamps

)$60 × 1100% - 20% = $48
$48 × 107% = $51.36

)85 × 4 = 340
84 + 83 + 80 = 247
340 - 247 = 93 marks

)360° - 292° = 68°
360° - 288° = 72°
180° - 72° - 76° = 32°
180° - 68° - 32° = 80°

72 × 2/3 = 48
48 × $2.40 = $115.20
$2.40 ÷ 2 = $1.20
72 ÷ 3 = 24
24 + $1.20 = $28.80
$115.20 + $28.80 = $144

$582 - $324 = $258
4units - 1unit = 3units
$258 ÷ 3units = $86
$324 - $86 = $238

)units + 1unit = 6units
.04 ÷ 6units = 34
4 × 5units = 170
1units + 6units = 17units
70 ÷ 17units = 10
1units - 6units = 5units
0 × 5units = 50
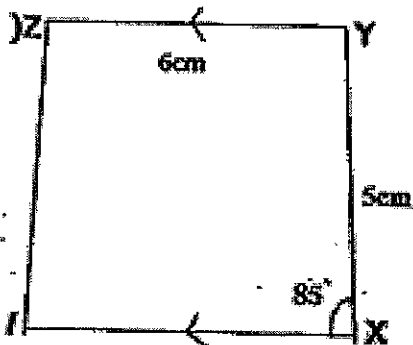
b)5cm

9)8units – 5units = 3units
   3units→$171
   1unit→$171÷3 = $57
   13units→$57 x 13 = $741

10)½ x 8cm x 6cm = 24cm2
    24cm2 x 2 = 48cm2
    48cm2 + 241cm2 = 289cm2
    Area of square = L x L
    289cm2 = 17cm x 17cm
    Perimeter→17cm x 4 = 68cm

11)∠DEA→(180° − 96°) ÷2 = 42°
    ∠BED→180° −48° − (180° − 96°) = 48°
    ∠AEC→180° − 42° − 48° = 90°
    ∠ACB→180° − 90° − 25° = 65°

12)$24 + $3 = $27
    $27÷3units = $9
    $9 x 14 = $126

13)100% - 58% = 42%
    3units + 4units = 7units
    42%÷7units = 6%
    6% x 3units = 18%
    58% - 18% = 40%
    40%-->240
    1%-->240÷40% = 6
    100%-->6 x 100% = 600 fruits

14)UVX→118°
    180° − 118° = 62°
    180° − 62° = 118°
    180° − 118° − 36° = 26°
    180° − (36° x 2) = 108°
    108° − 26° = 82°
    360° − 82° − 62° − 118° = 98°

lol

15) $1/6 = 2/12$
    2units→2/12
    3units→3/12
    $3/12 + 2/12 = 5/12$
    $12/12 - 5/12 = 7/12$
    7units→$760 + $500 = $1260
    1unit→$1260÷7 = $180
    12units→12 x $180 = $2160

16) $3 : 5 = 6 : 10$
    6units→552cm^2
    1unit→552cm^2÷6units = 92cm^2
    6units − 25% = 4.5units
    10units − (6units − 4.5units) = 8.5units
    8.5units + 4.5units = 13units
    13units x 92cm^2 = 119cm^2

17) a)
boy	girl	No of cookies
21	1	442
20	2	404
19	3	370
18	4	340
17	5	314
16	6	292
15	7	274
14	8	260
13	9 girls	250

   b) $13 \times 13 = 169$cookies

18) $1e + 1r = 240$
    $2e + 2r = 480$
    $2e + 4r = 840$
    2r→840 − 480 = 360
    2e→480 − 360 = 120