RED SWASTIKA SCHOOL

RED SWASTIKA SCHOOL

2012 CONTINUAL ASSESSMENT 1

MATHEMATICS
PAPER 1

Name : _____ ( )

Class : Primary 6 / _____

Date : 29 Feb 2012

BOOKLET A

15 Questions
20 Marks
Duration of Paper 1 (Booklets A & B): 50 minutes

Note:

1. Do not open this Booklet until you are told to do so.
2. Read carefully the instructions given at the beginning of each part of the Booklet.
3. Do not waste time. If a question is difficult for you, go on to the next one.
4. Check your answers thoroughly and make sure you attempt every question.
5. In this booklet, you should have the following:
   (a) Page 1 to Page 4
   (b) Questions 1 to 15
6. You are not allowed to use a calculator.

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 correct oval (1, 2, 3 or 4) on the Optical Answer Sheet. (20 marks)

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1 Evaluate $7g - g \div 2$ if $g = 6$.

(1) 10
(2) 18
(3) 21
(4) 39

2 Simplify $20 + 10y - 5 - 7y$.

(1) $15 + 3y$
(2) $15 - 3y$
(3) $25 - 3y$
(4) $25 + 17y$

3 $\frac{4}{7}$ is not the same as _____.

(1) $\frac{1}{4} \times 7$
(2) $4 \times \frac{1}{7}$
(3) $\frac{1}{7}$ of 4
(4) $4 \div 7$

4 Which of the following statements is incorrect?

(1) $10 \times \frac{5}{9} = 2 \times 5 \times \frac{5}{9}$
(2) $10 \times \frac{5}{9} = 2 \times \frac{5}{9} + 5 \times \frac{5}{9}$
(3) $10 \times \frac{5}{9} = 5 \times \frac{5}{9} + 5 \times \frac{5}{9}$
(4) $10 \times \frac{5}{9} = 8 \times \frac{5}{9} + \frac{5}{9} + \frac{5}{9}$

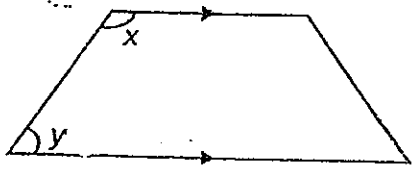
5 Anna baked $\frac{5}{6}$ as many muffins as Belle. Belle baked $\frac{3}{4}$ as many muffins as Claire. What is the ratio of the number of muffins Anna baked to the number of muffins Belle baked to the number of muffins Claire baked?

(1) 5 : 3 : 4
(2) 5 : 3 : 8
(3) 5 : 6 : 4
(4) 5 : 6 : 8

6 At a stadium, the ratio of the number of men to the number of women is 5 : 2. If there are 300 men, how many people are there at the stadium altogether?

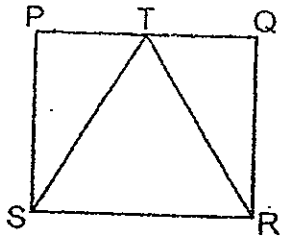
(1) 120
(2) 420
(3) 750
(4) 1 050

7 In the trapezium shown below, $\angle x$ is thrice the size of $\angle y$. Find $\angle x$.



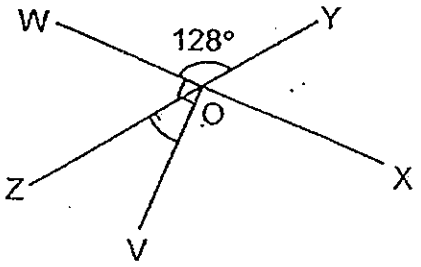
(1) 45°
(2) 60°
(3) 120°
(4) 135°

8 The figure below is made up of a rectangle, PQRS, and an equilateral triangle, RST. Find $\angle QRT$.



(1) 20°
(2) 25°
(3) 30°
(4) 45°

9 In the figure below, not drawn to scale, WX and YZ are straight lines. $\angle WOY = 128°$ and WOV is a right angle. Find $\angle VOZ$.



(1) 38°
(2) 45°
(3) 52°
(4) 64°

10 Express the ratio of 50 cm to 10 m in its simplest form.

(1) 1 : 20
(2) 1 : 200
(3) 5 : 1
(4) 50 : 10

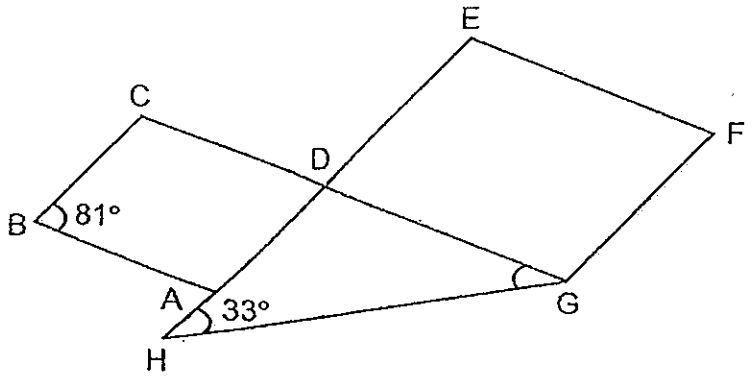
11 The length of a rectangle is twice its breadth. If the length of the rectangle is 6t cm, find the perimeter of the rectangle in terms of t.

(1) 9t cm
(2) 18t cm
(3) 24t cm
(4) 36t cm

12 Mary ate $\frac{1}{6}$ of a cake. Benson ate $\frac{2}{5}$ of the remainder and Michael ate the rest. What fraction of the cake did Michael eat?

(1) $\frac{1}{2}$
(2) $\frac{1}{3}$
(3) $\frac{3}{5}$
(4) $\frac{13}{30}$

13 In the figure below, not drawn to scale, ABCD and DEFG are parallelograms. CG and EH are straight lines. Given that $\angle ABC = 81°$ and $\angle AHG = 33°$, find $\angle DGH$.



(1) 33°
(2) 48°
(3) 57°
(4) 66°

14 30% of a number is 60. What is the number?

(1) 18
(2) 20
(3) 180
(4) 200

15 Dave has 2 cubes of different sizes. The ratio of the side of the small cube to that of the big cube is 1 : 2. Find the ratio of the volume of the small cube to that of the big cube.

(1) 1 : 2
(2) 1 : 3
(3) 1 : 6
(4) 1 : 8

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2012 CONTINUAL ASSESSMENT 1

MATHEMATICS
PAPER 1

Name : _____ ( )

Class : Primary 6 / _____

Date : 29 Feb 2012

BOOKLET B

15 Questions
20 Marks

In this booklet, you should have the following:
(a) Page 5 to Page 9
(b) Questions 16 to 30

MARKS

	OBTAINED	POSSIBLE
BOOKLET A		20
BOOKLET B		20
TOTAL		40

Parent's Signature : _____

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)

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16 The total age of Jerlyn and her brother is (6p + 5) years old. If Jerlyn is 2p years old, find her brother's age in terms of p.

Ans: _____ years old

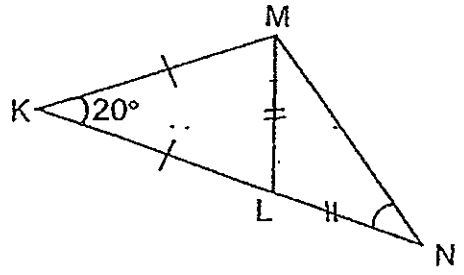
---

17 Henry bought 3 files at \$2k each and a book for \$8. If he had \$5k left, find the amount of money he had at first in terms of k.

Ans: \$_____

---

18 In the figure below, not drawn to scale, KL = KM and LM = LN. Given that $\angle LKM = 20°$ and KN is a straight line, find $\angle LNM$.



Ans: _____

3

19 How many thirds are there in 6 wholes?

Ans: _____

---

20 In a cake baking contest, Jill used $2\frac{3}{4}$ kg of flour while Kelly used $3\frac{1}{2}$ kg of flour. Express as a ratio the amount of flour Jill used to the amount of flour Kelly used in the simplest form.

Ans: _____

---

21 The total height of 2 men and 5 women is 11.76 m. Find the average height of each individual.

Ans: _____ m

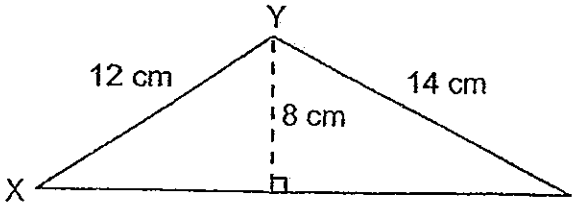
---

22 A cuboid with a square base of side 4 cm has a height of 13 cm. Find its volume.

Ans: _____ cm^3

4

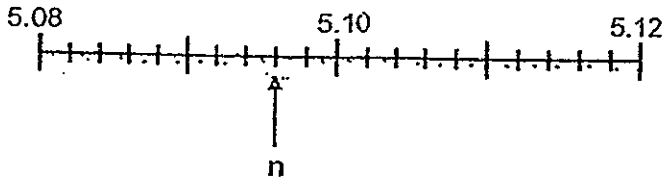
23 In the figure below, not drawn to scale, triangle XYZ has a perimeter of 46 cm. Find its area.



Ans: _____ cm^2

---

24 Study the number line as shown below. What is the value of n?



Ans: _____

---

25 At a sale, Bernard bought an ipad at a discount of 20%. If he paid $960 for the ipad, what was the original price of the ipad?

Ans: $_____

3

Questions 26 to 30 carry 2 marks each. Show your workings 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)

26 $\frac{3}{5}$ of the number of John's bookmarks is equal to $\frac{1}{3}$ of the number of Cindy's bookmarks. What is the ratio of the number of bookmarks John has to the number of bookmarks Cindy has?

Ans: _____

27 Ellie had 36r candies. She gave away $\frac{2}{9}$ of the candies and packed the remaining candies into packs of 4 candies each. How many packs of candies did she have?

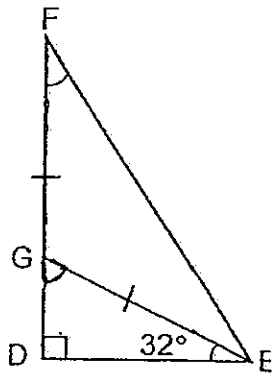
Ans: _____

28 Mrs Janet bought 5 kg of sugar. She used $\frac{7}{10}$ of it to make iced lemon tea for a party. How much sugar had she left?

Ans: _____ kg

6

29 The figure below, not drawn to scale, shows a right-angled triangle DEF. Given that $\angle DEG = 32°$ and FG = EG, find $\angle EFG$.



Ans: _____ °

---

30 Mr Yap gave a sum of money to Mandy and Glen as their monthly allowance in the ratio 5 : 3 respectively. If the total amount of the money given was $240, how much money did Mandy receive?

Ans: $_____

END OF PAPER

4

RED SWASTIKA SCHOOL

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2012 CONTINUAL ASSESSMENT 1

MATHEMATICS
PAPER 2

Name : _____ ( )

Class : Primary 6 / _____

Date : 29 Feb 2012

18 Questions
60 Marks
Duration of Paper 2: 1 hour 40 minutes

Note:

1. Do not open this Booklet until you are told to do so.
2. Read carefully the instructions given at the beginning of each part of the Booklet.
3. Do not waste time. If a question is difficult for you, go on to the next one.
4. Check your answers thoroughly and make sure you attempt every question.
5. In this paper, you should have the following:
   (a) Page 1 to Page 12
   (b) Questions 1 to 18
6. You are allowed to use a calculator.

MARKS

	OBTAINED	POSSIBLE
PAPER 1		40
PAPER 2		60
TOTAL		100

Parent's Signature : _____

Questions 1 to 5 carry 2 marks each. Show your workings clearly in the space below 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 It takes $\frac{2}{5}$ h to fill $\frac{4}{9}$ of a fish tank. How long does it take to fill the tank completely? Express your answer in hours.

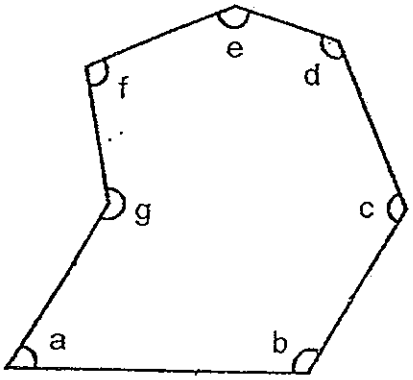
Ans: _____ h

2 The ratio of the number of yellow balls to the number of white balls in a box is 5 : 9. If there are 764 more white balls than yellow balls, how many balls are there in the box altogether?

Ans: _____

3 7 years ago, Linda was n years old. Her brother, Lucas is 8 years older than she is. What will be their total age in 12 years time? Express your answer in terms of n.

4 Find the sum of ∠a, ∠b, ∠c, ∠d, ∠e, ∠f and ∠g.



Ans: _____

5 Noel could buy either 25 pencils or 15 pens with his money. He decided to spend all his money on both pencils and pens. If he

Ans: _____

4

For Questions 6 to 18, show your workings clearly in the space below each question and write your answers in the spaces provided.
The number of marks available is shown in brackets [ ] at the end of each question or part-question. (50 marks)

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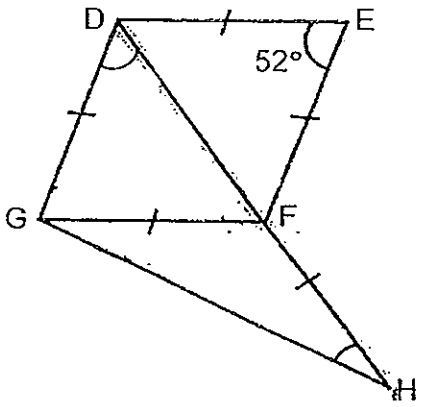
6 The figure below is not drawn to scale. DEFG is a rhombus and triangle FGH is an isosceles triangle. Given that $\angle DEF = 52°$ and DH is a straight line, find $\angle FHG$.



Ans: _____ [3]

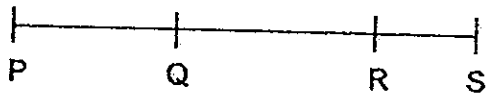
---

7 Denise is 12 years old now and her mother is 52 years old. In how many years time will she be $\frac{2}{7}$ as old as her mother?

Ans: _____ [3]

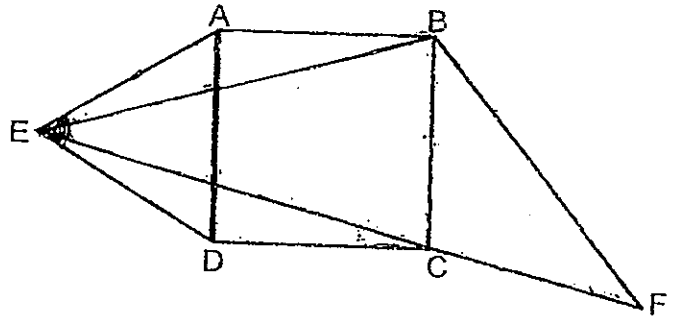
6

8 P, Q, R and S are 4 points on a straight line such that the ratio of PQ to that of PR is 3 : 7 and the ratio of QS to that of RS is 11 : 3. If RS = 12 cm, find the length of QR.



Ans: _____ [3]

9 In the figure below, not drawn to scale, ABCD is a square and ADE is an equilateral triangle. BE and EF are straight lines and BC = CF. Find ∠CFB.



Ans: _____ [3]

6

10 June, Dylan and Luke had lunch together. June paid $\frac{1}{4}$ of the total amount paid by Dylan and Luke. Dylan paid $\frac{1}{2}$ of the total amount paid by June and Luke. If Luke paid \$16 more than Dylan, what was the cost of the lunch?

Ans: _____ [3]

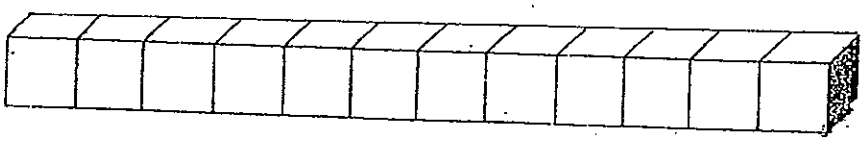
---

11 Jerry's daily allowance was \$1.40 more than Mabel's. Each of them spent \$2.10 daily and saved the rest. After some time, Jerry saved \$18.20 more than Mabel, who had already saved \$9.10. How much was Jerry's daily allowance?

Ans: _____ [3]

---

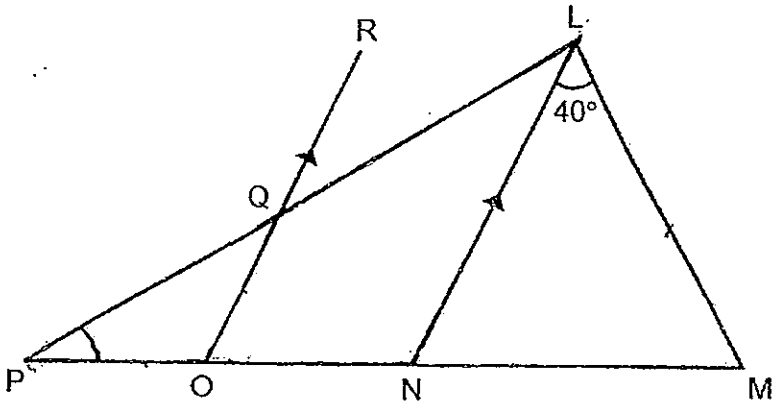
12 The figure below shows a cuboid consisting of 12 cubes. The shaded area of the cube is 49 cm^2. Find the volume of the cuboid.



Ans: _____ [4]

4

13 The figure below is not drawn to scale. LM = LN, OP = OQ and OR // NL. PM and PL are straight lines and ∠NLM = 40°. Find ∠OPQ.

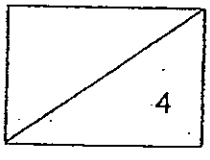


Ans: _____ [4]

4

14 A bakery sells curry buns at $1.30 each. During the promotion period, customers can buy the 3rd curry bun at half price for every 2 buns purchased. If Mr Lee has $50, what is the maximum number of curry buns he can buy during the promotion period?

Ans: _____ [4]



15 Mrs Wong spent some money on a skirt and $\frac{3}{5}$ of the remainder on a blouse. She then had $32 left. The cost of the blouse was $\frac{6}{7}$ the cost of the skirt.

(a) How much did the blouse cost?

(b) How much did she spend in total on the blouse and the skirt?

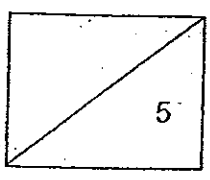
Ans: (a) _____ [2]

(b) _____ [3]

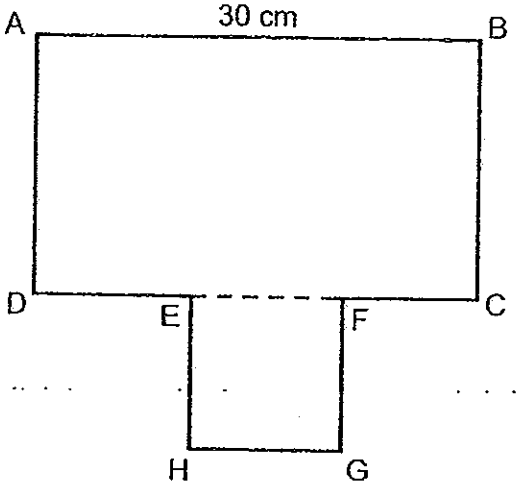
5

16 The sum of two numbers is 378. $\frac{5}{7}$ of the first number is equal to $\frac{1}{4}$ of the second number. Find the product of the two numbers.

Ans: _____ [5]



17 The figure below, not drawn to scale, is made up of a rectangle ABCD and a square EFGH. The length of the rectangle is 30 cm and its perimeter is 54 cm greater than the perimeter of the square. The ratio of their perimeter is 5 : 2.



(a) What is the breadth of the rectangle?

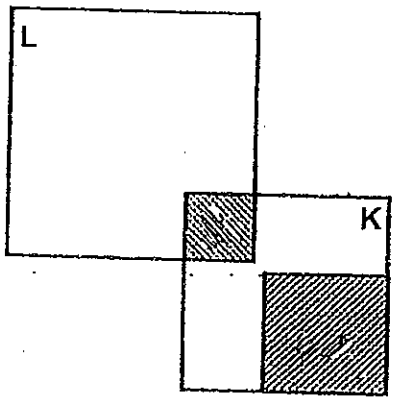
(b) What is the perimeter of the figure?

Ans: (a) _____ [2]

(b) _____ [3]

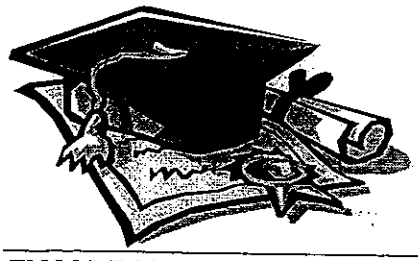
5

18 The figure below is made up of 3 squares, J, K and L. Given that the ratio of the area of square J to the area of square K is 4 : 7 and the ratio of the area of square K to the area of square L is 3 : 5. $\frac{1}{7}$ of square K is overlapped by square L. Find the ratio of the unshaded area to the shaded area of the figure in the simplest form.



Ans: _____ [5]

END OF PAPER



ANSWER SHEET

EXAM PAPER 2012

SCHOOL : RED SWASTIKA
SUBJECT : PRIMARY 6 MATHEMATICS

TERM : CA1

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
4	1	1	2	4	2	4	3	1	1	2	1	2	4	4

16)(4p+5) **17)$(11k+8)** **18)40°** **19)18** **20)11:14**

21)1.68m **22)208cm3** **23)80cm2** **24)5.096** **25)$1200**

26)5:9 **27)7r** **28)1½kg** **29)29°** **30)$150**

Paper 2

1)4/9→2/5h
1/9→2/5÷4/9
Amt.of time it takes to fill the tank completely
→9/10 x 9/9 = 9/10h

2) y : w
→5 : 9
9 − 5 = 4
4u→764
1u→764 ÷4 = 191
Total no. of units→9+5 = 14
No. of balls in the box altogether
→14 x 191 = 2674

3)Age of Linda now→n+7 = (n+7)
Age of Lucas now→n+7+8 = (n+15)
Age of Linda in 12 years time→n+7+12 = (n+19)
Age of Lucas in 12 years time→n+15+12 = (n+27)
Total ages in 12years time→n+19+n+27 = (2n +46)years old.

4)∠g+∠c→360°
∠a+∠b→180°
∠f+∠e+d→360°
Sum of ∠a,∠b,∠c,∠d,
∠e,∠f and∠g→360° + 180° + 360° = 900°

5)9 pens

6)∠GDF ξ ∠GFD→180° − 52° = 128°
∠GFD→128° ÷2= 64°
∠GFH→180° − 64° = 116°
∠FGH ξ ∠FHG→180° − 116° = 64°
∠FHG→64° ÷2 = 32°

7)Difference→52 − 12 = 40
5u→40
1u→40÷5 = 8
2u→8 x 2 = 16
No. of years time Denise will be 2/7 as old as her mother
→16 − 12 = 4 years time.

8)PQ : PR QS : RS
3 : 7 11 : 3
= 6 : 14
3u→12cm
1u→12÷3 = 4cm
Length of QR→4 x 8 = 32cm.

9)∠EDG→90° + 60° = 150°
180° − 150° = 30°
∠DCE→30° ÷2 = 15°
∠ECB→90° − 15° = 75°
∠BCF→180° − 75° = 105°
∠CBF ξ ∠CFB→180° − 105° = 75°
∠CFB→75° ÷2 = 37.5°

10)J : D ξ L D : J ξ L
1 : 4 1 : 2
= 3 :12 = 5 : 10
Units for Luke→10 – 3 = 7u
Units for Dylan→5u
Difference→7 – 5 = 2u
2u→$16
1u→16÷2 = $8
Total units→12 + 3 = 15
Cost of the lunch→15 x 8 = $120.

11)$18.20÷$140 = 13days
Amt. of money Jerry saved→18.20 + 9.10 = $27.30
$27.30÷13 = $2.10
Amt. of money Jerry allowance→2.10 + 2.10 = $4.20.

12)Length of the cube→$\sqrt{49}$ = 7cm
Length of the cuboid→7 x 12 = 84cm
Breadth of the cuboid→7cm
Height of the cuboid→7cm
Vol. of the cuboid→84 x 7 x 7 = 4116cm3

13)∠LNM ξ ∠LMN→180° – 40° = 140°
∠LNM→140° ÷2 = 70°
∠LNO→180° – 70° = 110°
∠QON→180° – 110° = 70°
∠QOP→180° – 70° = 110°
∠OPQ ξ ∠OQP→180° – 110° = 70°
∠OPQ→70° ÷2 = 35°

14)Cost. Of 2 buns→1.30 x 2 = $2.60
Cost of the 3rd buns→1.30÷2 = $0.65
Cost of 3 buns→2.60 + 0.65 = $3.25
No. of times of 2 buns→50÷3.25 = 15
Amt. of money remain→50 – 3.25 x 15 = $1.25
Maximum no. of curry buns he can buy
→15 x 3 = 45 curry buns.

15)a)2u→32
1u→32÷2 = $16
Cost. Of blouses→16 x 3 = $48
b)6u→$48
1u→48÷6 = $8
Cost of the skirt→8 x 7 = $56
Amt. of money she spent on the blouse and the skirt
→56 + 48 = $104

16)total units→20 + 7 = 27
27u→378
1u→378÷27 = 14
First no. →14 x 7 = 98
Second no. →14 x 20 = 280
Product of two no. →280 x 98 = 27440

17)a)Difference of units→5 – 2 = 3
3u→54cm
1u→54÷3 = 18cm
Perimeter of the rectangle→18 x 5 = 90cm
2 length→30x 2 = 60cm
2 breadth→90 – 60 = 30cm
Breadth of the rectangle→30÷2 = 15cm
b)Perimeter of the square→18 x2 = 36cm
Length of the square→36÷4 = 9cm
DE ξ FC→30 – 9 = 21cm
Perimeter of the figure→30 + 15 + 21 + 9 x 3 + 15 = 108cm

18)Unshaded (square L)→35 – 3 = 32
Unshaded (square k)→21 – 3 – 12 = 6
Units for the unshaded figure→32 + 6 = 38u
Units for shaded figure→3 + 12 = 15u
Ratio of unshaded area to the shaded area of the figure
→38: 15