NANYANG PRIMARY SCHOOL
FIRST CONTINUAL ASSESSMENT 2006
MATHEMATICS
PRIMARY SIX

Name: _____( ) Marks: /100

Class: Primary 6 ( ) Parent's Signature: _____

Date: 2 March 2006

Duration: 2 hours 15 minutes

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 2 856 437, the digit _____ is in the ten thousands place.

(1) 5

(2) 6

(3) 3

(4) 8

2 A rectangular field measures 42.63 m by 28.1 m. Which of the following is the best estimate for its area?

(1) 140 m^2

(2) 800 m^2

(3) 1 200 m^2

(4) 1 350 m^2

3 Which of the following fractions has the largest value?

(1) $\frac{5}{9}$

(2) $\frac{6}{11}$

(3) $\frac{3}{5}$

(4) $\frac{4}{7}$

4 Liz is 0.4 m shorter than her mother. If her mother's height is 164 cm, find their total height.

(1) 2.04 m

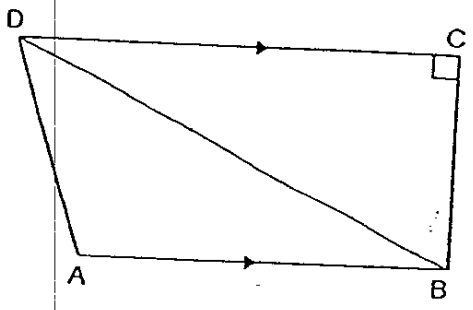
(2) 2.88 m

(3) 3.24 m

(4) 3.68 m

2

5 In the figure below, ABCD is a trapezium. Which line is perpendicular to AB?



(1) AD

(2) CB

(3) DB

(4) DC

6 A Game Boy set costs $180. An X-Box costs 120% of the Game Boy set. What is the cost of the X-Box?

(1) $396

(2) $300

(3) $216

(4) $150

7. Simplify $5w + 4 - 2w - 2 + 7w + 5$.

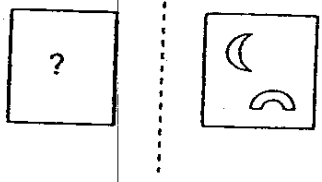
(1) $10w - 7$

(2) $10w + 7$

(3) $10w + 11$

(4) $14w + 7$

8 Which of the following figures is symmetrical to the one shown below?



Line of symmetry

(1) 

(2) 

(3) 

(4) 

9 Aini has some money. $\frac{5}{9}$ of them are 50–cent coins, $\frac{1}{8}$ of the remainder are 20–cent coins and the rest are 10–cent coins. Find the ratio of the number of 50–cent coins to the number of 20–cent coins to the number of 10–cent coins.

(1) 5 : 1 : 3

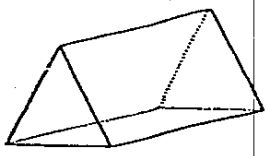
(2) 5 : 1 : 7

(3) 7 : 1 : 10

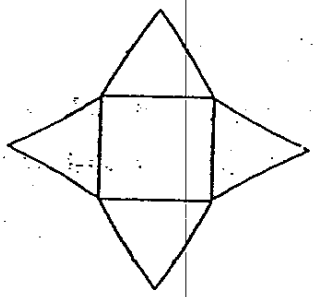
(4) 10 : 1 : 7

4

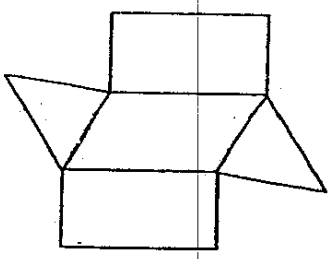
10 This figure below shows a solid. Which one of the following is the net of the solid?



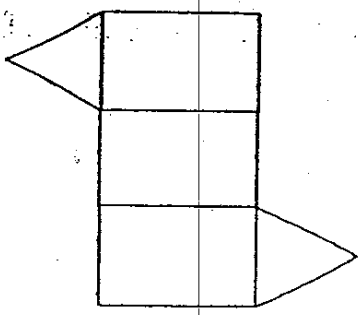
(1)



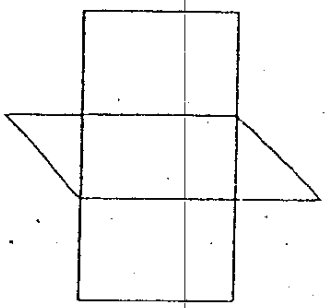
(2)



(3)



(4)



5

11 How many ninths are there in the product of $\frac{7}{5}$ and $\frac{10}{3}$?

(1) 14

(2) 30

(3) 42

(4) 70

12 Mr Chong finished washing and polishing his car at 1.15 p.m. He took $1\frac{1}{10}$ h to wash and $2\frac{1}{4}$ h to polish his car. At what time did he start?

(1) 9.40 a.m.

(2) 9.54 a.m.

(3) 10.36 a.m.

(4) 10.54 a.m.

13 If 6 chickens lay 40 eggs in 8 days, how many eggs would 12 chickens lay in 2 days?

(1) 20

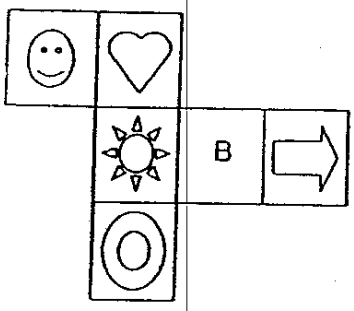
(2) 40

(3) 80

(4) 120

6

14



The figure above shows the net of a cube. Which face would appear opposite B?

(1) 

(2) 

(3) 

(4) 

15 The table below shows the test marks scored by a group of pupils. Who has scored closest to the average marks of all the pupils?

	Zhiwei	Ryan	Nooradin	Dave
Number of marks scored	120	111	98	86

(1) Zhiwei

(2) Ryan

(3) Nooradin

(4) Dave

Name: _____( ) Class: Pr 6 ( )

P6 CA1 2006

Booklet B

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 Find the value of $72 - 8 \times 3 + (30 - 14) \div 8$.

Ans: _____

---

17 What is the missing number in the box?

$$\frac{9}{} \times \frac{4}{5} = \frac{4}{5} + \frac{2}{5} \times \square + \frac{4}{5} + \frac{4}{5}$$

Ans: _____

---

18 Express 25 tenths, 6 hundredths and 12 thousandths as a decimal.

Ans: _____

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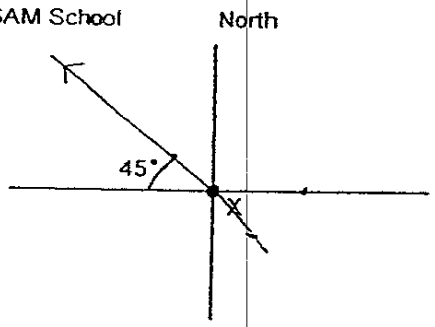
19 The thickness of a dictionary is $\frac{3}{50}$ m. What is the thickness of 28 similar dictionaries stacked one on top of another? Leave your answer as a decimal.

Ans: _____ m

20



Junwen was walking from Point X to SAM School in the direction indicated. He made a 225° clockwise turn. Which direction would Junwen be facing now?

Ans: _____

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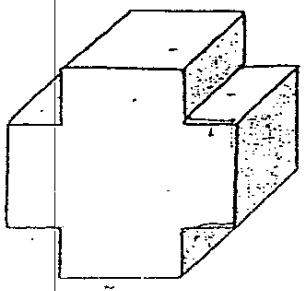
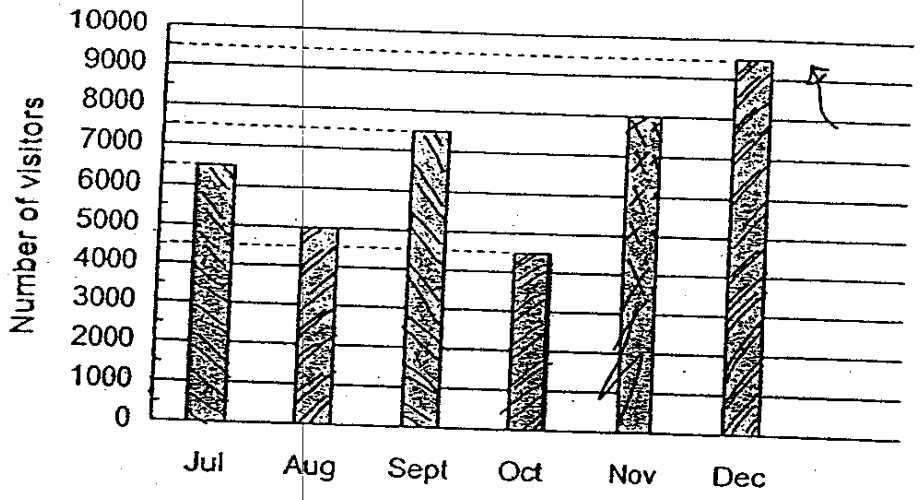
21 How many faces does the solid have?



Ans: _____

The graph below shows the number of visitors to the zoo from July to December. Study it carefully and answer Questions 22 and 23.



22 How many times as many visitors were there in September as in October?

Ans: _____

23 In how many months were the number of visitors less than the average number of visitors from July to December?

Ans: _____

10

24 Zhiheng has twice as many toy cars as toy aeroplanes and he has twice as many toy aeroplanes as toy guns. What is the ratio of the number of toy cars to the number of toy guns to the number of toy aeroplanes?

Ans: _____

25 Find the value of $\frac{50k}{20-4k}$ when $k = 2$.

Ans: _____

Questions 26 to 35 carry 2 marks each. Show your working 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.

(20 marks)

26 Express $15\frac{7}{8}$ as a decimal. Give your answer correct to 2 decimal places.

Ans: _____

27 Mrs Lau bought 2 plates and 2 bowls. The mass of a bowl is $\frac{4}{7}$ that of a plate. If the mass of a plate was 84 g more than the mass of a bowl, find the total mass of all the plates and bowls.

Ans: _____ g

---

28 Mrs Mariam bought 20 oranges for $8. If the price of each orange was increased by 5 cents, what was the **maximum** number of oranges she could buy with the same amount of money?

Ans: _____

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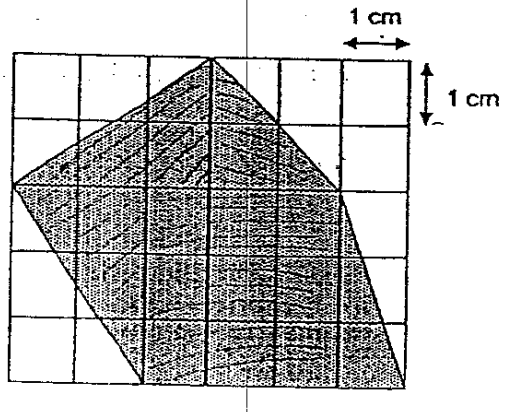
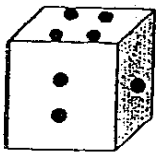
29 Find the area of the shaded figure.



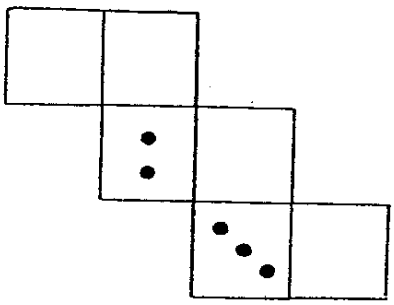
Ans: _____ cm^2

12.

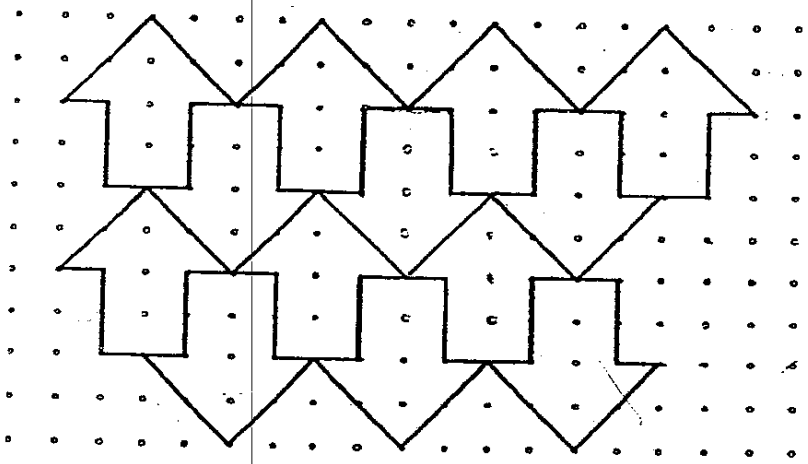
30 The picture below shows a standard dice. The opposite faces always add up to 7. Fill in the missing faces.



Ans:



31 In the tessellation below, shade the unit shape. Draw 1 more unit shape to extend the tessellation.



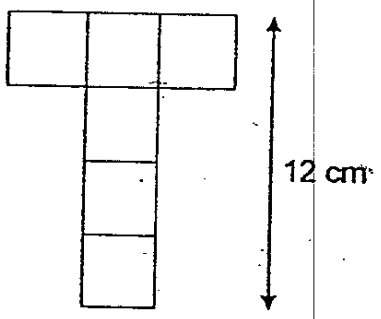
32 The teacher-pupil ratio in a childcare centre is 1 : 24. The number of boys is $\frac{2}{3}$ the number of girls. If there are 48 boys, how many teachers are there?

Ans: _____

33 Siti bought 5 curry buns for $\$4p$ and 8 tuna buns for $\$3p$. If $p = 2$, find the total cost of one curry bun and one tuna bun.

Ans: $ _____

34 The figure below shows the net of a cube. Find its volume.



Ans: _____ cm^3

35 6 apples cost $\$2y$. Mrs Chow bought 21 apples and paid the shopkeeper $10. How much change would she receive?

Ans: $_____

16.

Name: _____( ) Class: Pr 6 ( )

P6 CA1 2006

For questions 36 to 48, show your working clearly in the space provided for 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)

36 Daisy divided some beads equally into 2 groups. She packed the first group of beads equally into 6 boxes and the second group equally into 10 packets. If 3 boxes and 7 packets contained a total of 72 beads, find the total number of beads Daisy had.

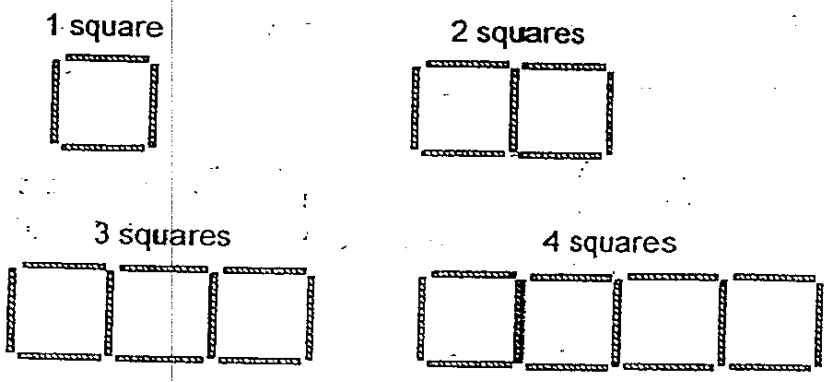
Ans: _____ [3]

37 At a party, $\frac{2}{5}$ of the children ate pizzas. $\frac{4}{7}$ of these children also ate sandwiches. If there were 24 children who ate both pizzas and sandwiches, find the total number of children who were at the party.

Ans: _____ [3]

15.

38 Sticks are used to form squares as shown below.



(a) How many sticks are needed to form 6 squares?
(b) How many squares can be formed using 160 sticks?

Ans: (a)_____[1]

(b)_____[2]

16

39 The ratio of the number of Jenny's stickers to the number of Mary's stickers was 3 : 8. Mary bought some stickers and increased the number of her stickers by 50%. By what percentage must Jenny increase her stickers if she wanted to have the same number of stickers as Mary?

Ans: _____ [3]

40 The ratio of the number of muffins to the number of cookies was 5 : 6. After some cookies were eaten, the ratio became 2 : 1. If there were 24 cookies at first, how many cookies were eaten?

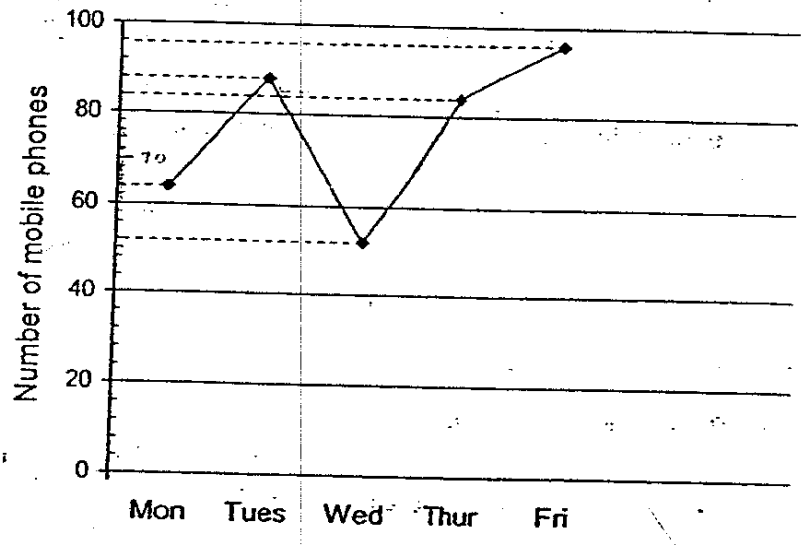
Ans: _____ [3]

17

41 The graph below shows the number of mobile phones sold by a shop in a particular week. Study it and use it to answer the questions that follow.

(a) Find the ratio of the total number of mobile phones sold on Monday and Tuesday to the total number of mobile phones sold on Wednesday and Thursday.

(b) Find the percentage increase in the number of mobile phones sold from Thursday to Friday.

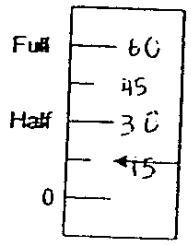


Ans: (a)_____ [1]

(b)_____ [2]

18

42 The diagram below shows the reading of the fuel gauge in Mr Woo's car. The tank contains 60 litres of petrol when it is full.



(a) If the car travels an average of 180 km on 12 litres of petrol, how far can Mr Woo's car travel with the remaining petrol?

(b) If one litre of petrol cost \$1.58, how much will a $\frac{3}{4}$ tank of petrol cost?

Ans: (a) _____ [2]

(b) _____ [2]

9

43 Muthu bought some pens for $45. If he was given a discount of 20% on his purchase, he would be able to buy 3 more pens with the same amount of money. Find the usual price of 1 pen.

Ans: _____ [4]

---

44 Barbie has just enough money to buy 10 lollipops and 8 chocolate bars. With the same amount money, she can also buy 5 lollipops and 10 chocolate bars. If she decides to use all her money to buy only lollipops, how many lollipops can she buy?

Ans: _____ [4]

20.

(45) Sharifah paid $50 for some ~~mangoes~~ and watermelons. She received $12.40 as change. The cost of a mango was 0.6 that of a watermelon. A mango cost $2.40. If all the mangoes cost $5.60 more than all the watermelons, how many ~~mangoes~~ fruits did Sharifah buy?

Ans: _____ [5]

21

46 A rectangular tank with length 40 cm and breadth 30 cm was $\frac{2}{5}$ filled with water. When 10.2 ℓ of water was poured in, the water level rose to 22.9 cm. Find the height of the tank. (1 ℓ = 1000 cm^3)

Ans: _____ [5]

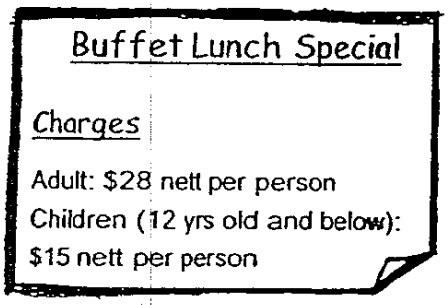
22

47 In a fish tank, the ratio of the number of goldfish to the total number of angelfish and swordtails was 2:5. The ratio of the number of angelfish to the number of swordfish was 9:1. There were 15 more angelfish than goldfish. After some goldfish were added, 40% of the fishes were goldfish. How many goldfish were added?

Ans: _____ [5]

23.

48 The advertisement below shows the charges for a buffet lunch.



A group of 23 adults and children had buffet lunch together. The bill came up to be $436. How many adults were in the group?

Ans: _____ [5]

END OF PAPER

Setters: Mrs Amy Chow
Mrs Linda Tan

24

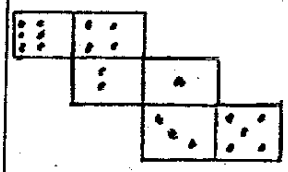
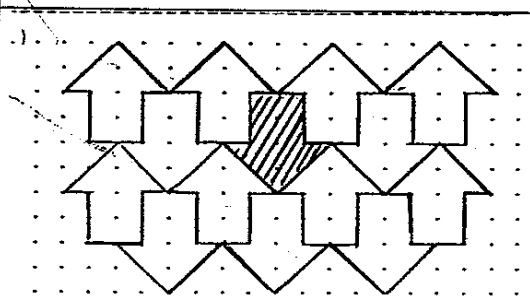
Nanyang Primary School

Primary 6 Maths CA1 Exams (2006)

Answer Sheets

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

16. **50**
17. 12
18. **2.572**
19. **1.68m**
20. **South**
21. **14 faces**
22. $1\frac{2}{3}$
23. **3 months**
24. **4 : 1 : 2**
25. $8\frac{1}{3}$

26.	**15.88**	**27.**	**616g**
28.	**17 oranges**	**29.**	**18.5cm²**
30.		**31.**	
32.	**5 teachers**	**33.**	**$2.35**
34.	**64cm³**	**35.**	**$(10-7y)**

36.	72 ÷ 36 = 2 beads 2 x 60 = 120 beads Daisy had <u>120 beads</u>. (Ans)	37.	24 ÷ 8 = 3 3 x 7 = 21 21 x 5 = 105 There were <u>105 children</u> at the party.
38a. 38b. a. b.	1 square = 1 + 3 = 4 sticks 2 squares = 1 + 3 + 3 = 7 sticks 6 squares =1 + 3 + 3 + 3 + 3 + 3 + 3 = 19stick 19 sticks are needed to form 6 squares. 160 – 1 = 159 159 ÷ 3 = 53 squares 53 squares can be formed. <u>Checked</u> 19 – 1 = 18 18 ÷ 6 = 3 53 = 1 x 3 x 53 = 159	39.	8u ÷ 2 = 4u 8u + 4u = 12u 12u – 3u = 9u (9 ÷ 3) x 100% = <u>300%</u> (Ans) Jenny must increased her stickers by 300%
40.	24 ÷ 12 = 2 2 x 7 = 14 14 cookies were eatern	41a. 41b.	64 + 88 = 152 (Mon + Tues) 52 + 84 = 136 (Wed + Thurs) <u>Mon + Tues</u> : <u>Wed + Thurs</u> 152 : 136 19 : 17 The ration is <u>19 : 17</u> (Ans) 96 – 84 = 12 12 ÷ 84 x 100% = $14\frac{2}{7}\%$ The increase was $14\frac{2}{7}\%$ (Ans)

42a.	$60 \div 4 = 15\ell$ $12\ell = 180km$ $15\ell = \frac{5}{4} \times 180km = 225km$ Mr Woo car can travel 225km on the remaining petrol	43.	$\frac{20}{100} \times \$45 = \$9.00$ $\$9.00 = 3$ pen $\$9.00 \div 3 = \$3.00$ $\frac{100}{80} \times \$3 = \$3.75$ The usual price of a pen is <u>$3.75</u> (Ans)
42b.	$15\ell \times \$1.58 = \$71.10$ $\frac{3}{4}$ tank of petrol will cost <u>$71.10</u> (Ans)		
44.	5u of L = 2u of Chocolate bars 10u of L = 4u of Chocolate bars 20u of L = 8u of Chocolate bars 20u + 10u = 30 loppipops	45.	$(50.00 - 12.40) = $37.60 (Paid) Mangoes = $2.40 Waterlon = $2.40 ÷ 3 x 5 = $4.00 9 + 4 = 13 fruits She bough <u>13 fruits</u>. (Ans)
46.	$10.2\ell = 10200cm^3$ Height = 10200 ÷ (40 x 30) = 8.5cm = 22.9 – 8.5 = 14.4cm $\frac{2}{5} = 14.4$ $\frac{5}{5} = 360 \div 10 = 36cm$ The height of the tank is <u>36cm</u> (Ans)	47.	G : A : S 9 : 1 2 : 5 : 5 4 : 9 : 1 9u – 4u = 5u 5u = 15 4u = 12 (gold) 9u = 27 (angel) 1u = 3 (sword) 12 x 2 = 24 2 mall u = 1 fish 16 small units = 8 fishes <u>8 goldfishes</u> were added (Ans)
48.	$(28.00 – 15) = $13.00 $15 x 23 = $345.00 $(436 – 345) = $91.00 = $91.00 ÷ 13 = 7 There were <u>7 adults</u> in the group. (Ans)		