



NAN HUA PRIMARY SCHOOL
SEMESTRAL ASSESSMENT 1 – 2011
PRIMARY 5

MATHEMATICS

Paper 1

Section A: 15 Multiple Choice Questions (20 marks)

Section B: 10 Short Answer Questions (20 marks)

Total Time for Paper 1: 50 minutes

INSTRUCTION TO CANDIDATES

1. Write your name and index number in the space provided.
2. Do not turn over the page until you are told to do so.
3. Follow all instructions carefully.
4. Answer all questions.
5. Shade your answers in the Optical Answer Sheet (OAS) provided for Questions 1-15.
6. You are not allowed to use calculator for Paper 1.

Marks Obtained

Paper 1		/ 40
Paper 2		/ 60
Total		/ 100

Name : _____ ()

Class : _____

Date : 11 May 2011

Parent's Signature: _____

Section A (20 marks)

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) and shade on the oval (1, 2, 3 or 4) on the Optical Answer Sheet.

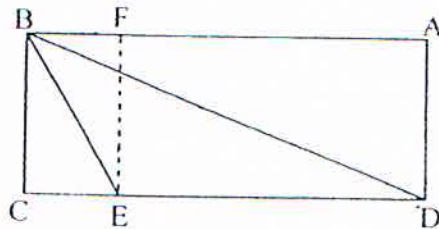
1. The digit '5' in 7 653 910 has a value of _____.
- (1) 5×100
(2) $5 \times 1\,000$
(3) $5 \times 10\,000$
(4) $5 \times 100\,000$ ()
2. Ahmad bought a house for \$389 755.
What was the amount when rounded off to the nearest \$100 ?
- (1) \$389 000
(2) \$389 700
(3) \$389 800
(4) \$390 000 ()
3. Which of the following gives the value of 100 000?
- (1) 250×40
(2) $1\,250 \times 80$
(3) $20 \times 50\,000$
(4) $6\,000\,000 \div 6$ ()
4. In $20 + 80 \square 40 \div 5 = 92$, what is the missing operation in the box?
- (1) +
(2) -
(3) \times
(4) \div ()

5. $\frac{1}{5} + \frac{1}{5} + \frac{1}{5} + \frac{1}{5} + \frac{1}{5} + \frac{1}{5} = \square \times \frac{2}{5}$

The missing number in the box is _____.

- (1) 6
- (2) 2
- (3) 3
- (4) 4

6. Look at the figure below. The area of $\triangle BDE$ is equal to _____.



- (1) $\frac{1}{2}$ of the area of rectangle BCEF.
- (2) $\frac{1}{2}$ of the area of triangle ABD.
- (3) $\frac{1}{2}$ of the area of rectangle ABCD.
- (4) $\frac{1}{2}$ of the area of rectangle ADEF. ()

7. Erasers are sold as follows:

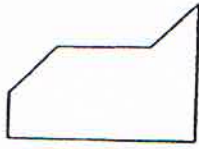
One eraser \$0.20	A box of 10 erasers \$1.80	A box of 50 erasers \$8.50
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What is the most number of erasers Kenneth can buy if he has \$20?

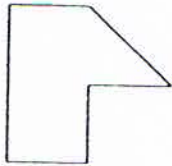
- (1) 117
- (2) 116
- (3) 110
- (4) 100 ()

8. Which one of the following shapes does not tessellate?

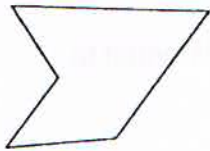
(1)



(2)



(3)



(4)



()

9. Express $\frac{3}{7}$ as a decimal. Give your answer correct to 2 decimal places.

(1) 0.42

(2) 0.43

(3) 2.33

(4) 2.34

()

10. 9kg 8g is equivalent to _____ kg.

(1) 98

(2) 9.8

(3) 9.08

(4) 9.008

()

11. Siti had $\frac{3}{4}$ as many marbles as Sally. After a game, she lost $\frac{1}{6}$ of her marbles to Sally. What is the ratio of Siti's marbles to Sally's marbles after the game?

- (1) 2 : 5
- (2) 5 : 8
- (3) 5 : 9
- (4) 7 : 12

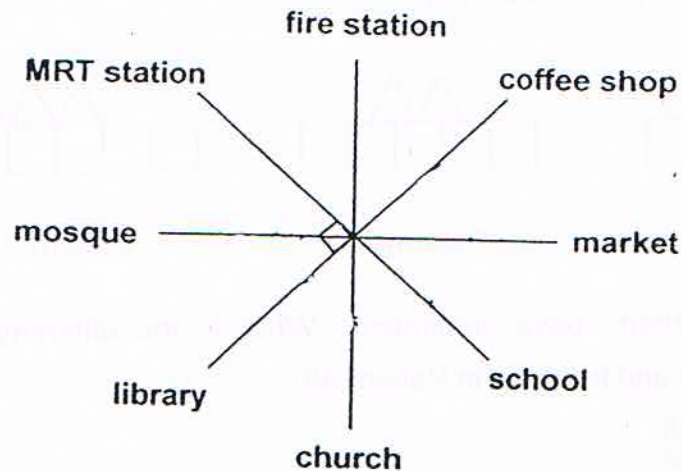
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12. Box P has a mass of $\frac{1}{5}$ kg. Box Q has a mass of $\frac{3}{4}$ kg. Find the ratio of the mass of Box Q to the mass of Box P.

- (1) 3 : 1
- (2) 4 : 5
- (3) 4 : 15
- (4) 15 : 4

()

13.

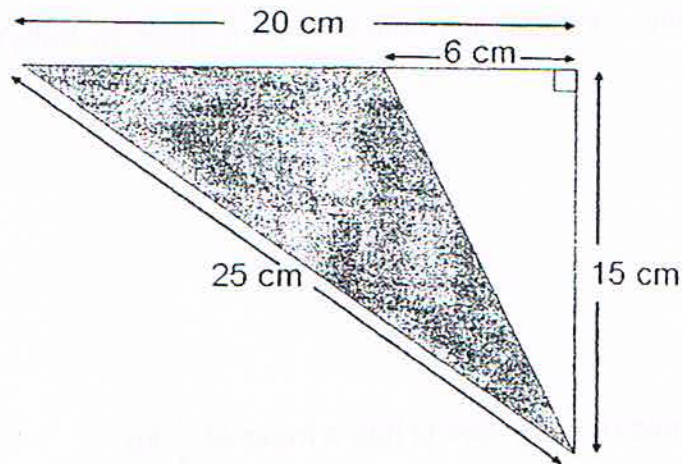


After praying, Ali left the mosque to meet Richard. If Ali travelled 225° anti-clockwise, where would he meet Richard?

- (1) Library
- (2) Coffee shop
- (3) MRT station
- (4) School

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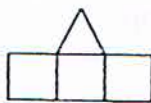
14. Find the area of the shaded triangle below.



- (1) 105 cm^2
- (2) 150 cm^2
- (3) 175 cm^2
- (4) 250 cm^2

()

15. Study the pattern carefully.



Pattern 1



Pattern 2



Pattern 3

...

The pattern above continues. What is the difference in the number of squares and triangles in Pattern 45?

- (1) 45
- (2) 46
- (3) 91
- (4) 136

()

Section B (20 marks)

Questions 16 to 25 carry 1 mark each. Questions 26 to 30 carry 2 marks each. For each question from 26 to 30, show your workings clearly in the space below it and write your answer in the space provided. Give your answers in the units stated.

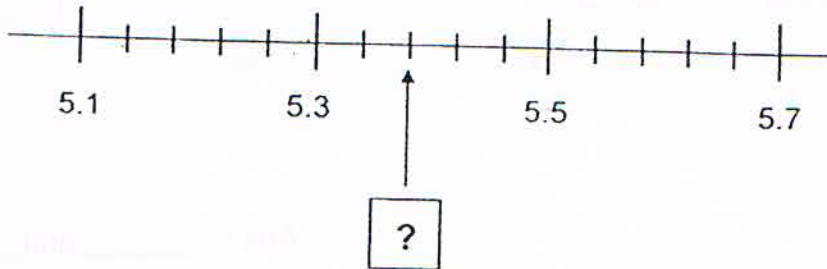
16. Write three million, twenty-two thousand and eleven in numerals.

Ans : _____

17. Esther went for a midnight movie that started at 11.40 p.m. The movie lasted for 2h 25min. What time did it end?

Ans : _____

18. Fill in the missing decimal



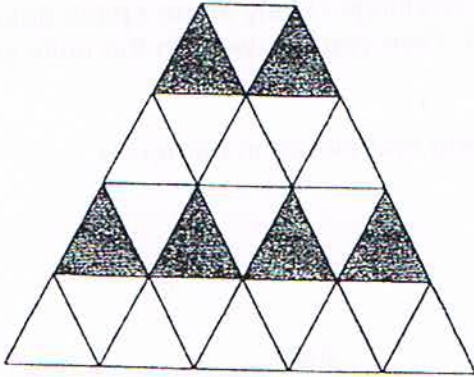
Ans : _____

19. Complete the number pattern.

48 023, _____, 47 723, 47 573, 47 423, 47 273

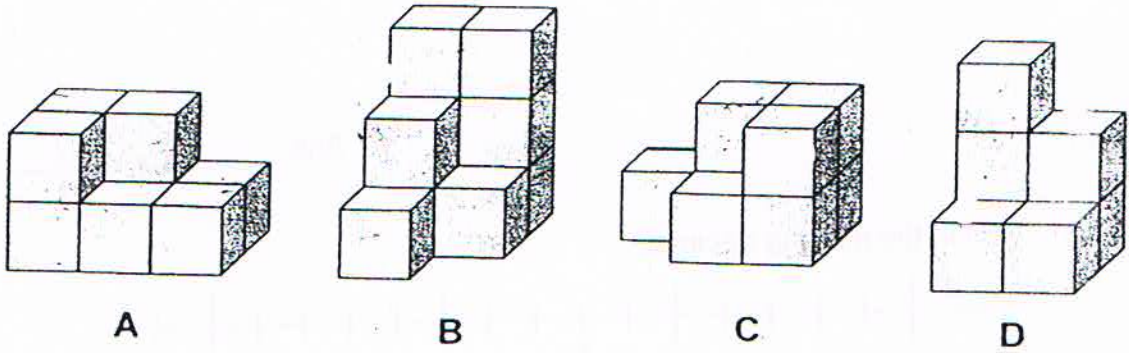
Ans : _____

20. In the figure below, how many more triangles must be shaded to make the ratio of the number of shaded triangles to the total number of triangles 2 : 3 ?



Ans : _____ more

21. Which two of the following figures can be fitted to form a cuboid?

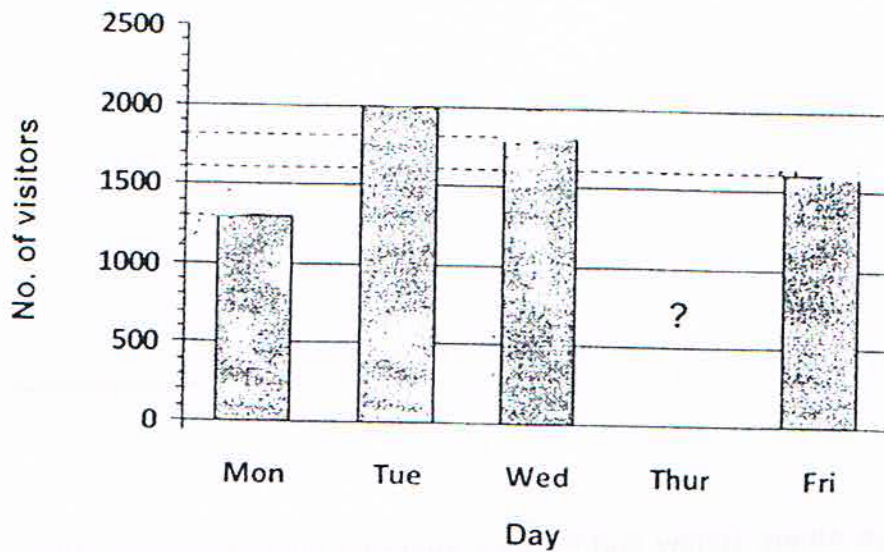


Ans : _____ and _____

22. Express $2\frac{1}{5}$ h in hours and minutes.

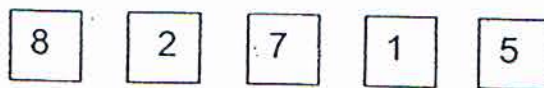
Ans : _____ h _____ min

23. The graph below shows the number of visitors at the zoo from Monday to Friday. If the total number of visitors is 7700 from Monday to Friday, what is the number of visitors on Thursday?



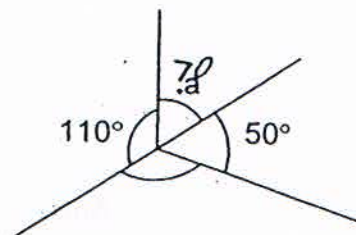
Ans : _____ visitors

24. Use the following digits to form the smallest possible 5-digit odd number.



Ans : _____

25. The figure below is not drawn to scale. What is the sum of $\angle a$ and $\angle b$?



Ans : _____ °

26. Anna bought some magazines and comics in the ratio 1 : 3. The ratio of the number of comics she bought to the number of story books she bought was 2 : 5. Find the ratio of the number of magazines to the number of comics to the number of story books.

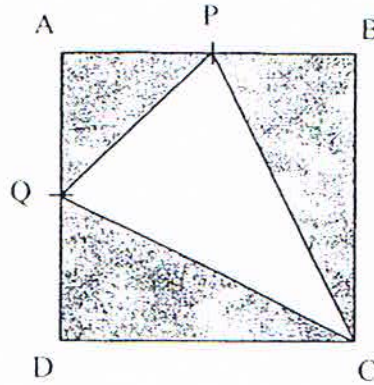
Ans : _____

27. 3 boys Albert, Benny and Charles shared a sum of money. Albert took $\frac{1}{2}$ of the sum of money. After Albert had taken his share, Benny took $\frac{1}{3}$ of the money which remained.

After that, Charles took all the remaining money. What fraction of the sum of money was Charles' share? (Give your answer in its simplest form.)

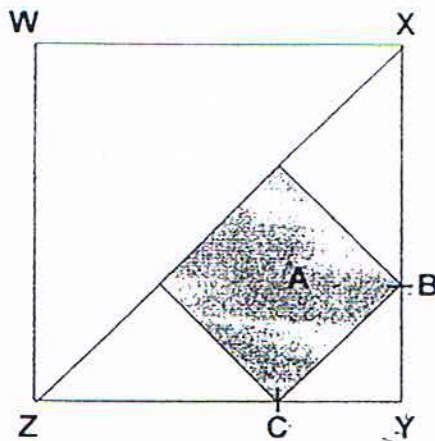
Ans : _____

28. In the figure below, not drawn to scale, $AP = PB$ and $AQ = QD$. If the area of Square ABCD is 240 cm^2 , what is the area of the shaded part?



Ans : _____ cm^2

29. In the figure below, not drawn to scale, A is a square embedded in Square WXYZ such that $CY = \frac{1}{3} ZY$ and $BY = \frac{1}{3} XY$. Express the area of A as a fraction of Area of Square WXYZ.



Ans : _____

30. A computer animated creature can grow to a length of 128 cm in 5 days by doubling its length every day. How many days does it take to grow to a length of 32 cm?

Ans : _____ days

End-of-Paper 1



NAN HUA PRIMARY SCHOOL
SEMESTRAL ASSESSMENT 1 – 2011
PRIMARY 5

MATHEMATICS

Paper 2

Total Time for Paper 2: 1 hour 40 minutes

INSTRUCTION TO CANDIDATES

1. Write your name and index number in the space provided.
2. Do not turn over the page until you are told to do so.
3. Follow all instructions carefully
4. Answer all questions and show your workings clearly.
5. You are allowed to use a calculator.

Marks Obtained

Total		/ 60
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Name . _____ ()

Class: _____

Date: 11 May 2011

Parent's Signature _____

Paper 2 (60 marks)

Questions 1 to 5 carry 2 marks each. Show your workings clearly in the space below it and write your answer in the space provided. Give your answers in the units stated.

1. The ratio of John's mass to his father's mass is 7 : 9.
If John is 18 kg lighter than his father, what is John's mass?

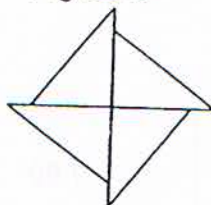
Ans : _____ kg

2. Right-angled Triangle A has a perimeter of 12 cm. Its shortest side is 3 cm. Xiaohua used 4 such triangles to make Figure B. What is the perimeter of Figure B?

Triangle A



Figure B

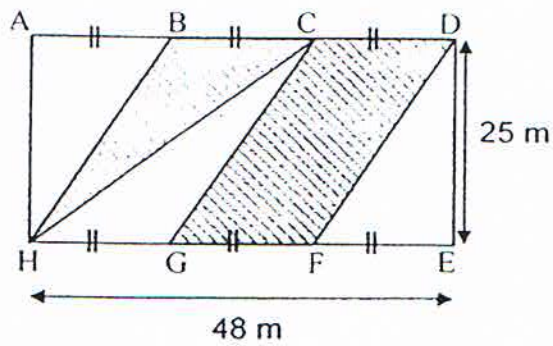


Ans : _____ cm

3. Thomas can buy either 36 identical pens or 24 identical markers with the money he has. After buying 8 such markers and 15 such pens, how many more such pens can Thomas buy with the remaining money he has?

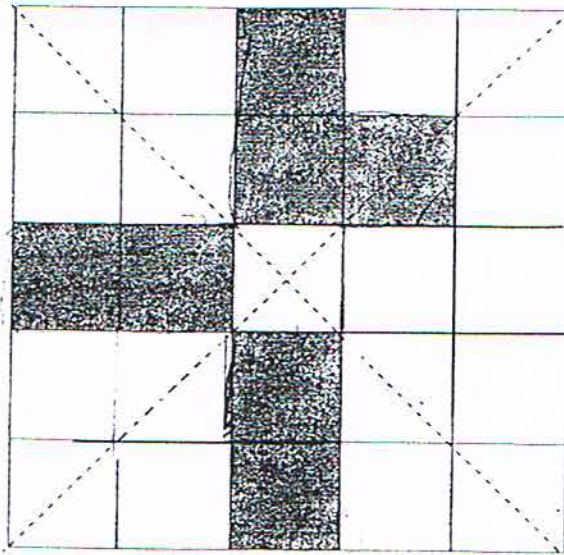
Ans : _____

4. In the figure ADEH, not drawn to scale, $AB=BC=CD=EF=FG=GH$. Find the total shaded area.



Ans : _____ m^2

5. Shade 3 squares in the following figure so that the dotted lines are two lines of symmetry of the figure.



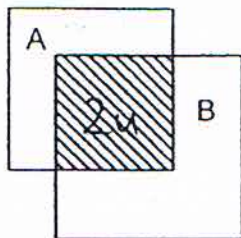
For each question from 6 to 18, show your workings clearly in the space below it and write your answer in the space provided. The number of marks available is shown in brackets [] at the end of each question or part-question.

Remember to include the units wherever possible.

6. When a metal box is $\frac{1}{4}$ full of iron nails, its mass is 12kg. When it is completely filled with iron nails, it has a mass of 42kg. Find the mass of the metal box when it is empty.

Ans : _____ [3m]

7. The figure below consists of 2 squares A and B overlapping each other. The ratio of area of square A to area of square B is 5 : 6 . $\frac{1}{3}$ of B is shaded. What is the ratio of the shaded part to the total area of the figure?



Ans : _____ [3m]

8. There were 12 more boys than girls at a camp. Half of the girls and 36 boys wore spectacles. The number of boys and the number of girls who wore spectacles were the same. How many children were at the camp?

Ans _____ [3m]

9. Chenfa bought a bag with $\frac{2}{9}$ of his money and a watch that cost \$80 more than the bag. He had $\frac{1}{3}$ of his money left. How much money did he have at first?

Ans : _____ [3m]

10. $\frac{3}{4}$ of Alice's salary is the same as $\frac{1}{2}$ of Betty's salary. If Alice earns \$200 less than Betty, how much does Betty earn?

Ans _____ [3m]

11. The ratio of the number of books Cassandra has to the number of books Daniel has is 7 : 5. After Cassandra has given 60 books to Daniel, the ratio of the number of books she has to the number of books Daniel has is 1 : 5. Find the total number of books they have.

Ans _____ [3m]

12. Look at the following pattern:

Pattern number	Expression
1	$\frac{1}{2} + \frac{1}{3} = \frac{5}{6}$
2	$\frac{1}{3} + \frac{1}{4} = \frac{7}{12}$
3	$\frac{1}{4} + \frac{1}{5} = \frac{9}{20}$
4	$\frac{1}{5} + \frac{1}{6} = ?$
•	•
•	•
•	•

- a) Find the missing value of pattern number 4.
- b) Write down the expression for pattern number 6.
- c) Write down the expression that gives a value of $\frac{199}{9900}$.
Which pattern number will give this value?

(a) _____ [1m]

Ans : (b) _____ [1m]

Ans : (c) _____ [1m]

_____ [1m]

13. A bus left the bus terminal with a number of passengers. 7 passengers alighted and 10 passengers boarded the bus at the first bus stop. At the second bus stop, $\frac{1}{2}$ of the number of passengers alighted and 21 passengers were left on the bus. How many passengers were on the bus when it left the bus terminal?

Ans : _____ [4m]

14. Last Lunar New Year, Mrs Lim changed \$400 into new \$2-notes and \$10-notes. The total number of new notes she received was 72. How many new \$2-notes did she receive?

Ans : _____ [4m]

15. At a theme park, two adults and 3 children have to pay \$25 for admission tickets. Two adults and 10 children have to pay \$46 for admission tickets.

(a) What is the cost of a child's ticket?

(b) Find the total cost of tickets for 5 adults?

Ans : (a) _____ [3m]

Ans : (b) _____ [2m]

16. Ella, Hebe and Selena were given some funfair tickets to sell. Each ticket was sold for \$10. Selena sold $\frac{2}{3}$ of the tickets. Hebe and Ella sold the remaining tickets in the ratio 1 : 2. Selena sold 32 tickets more than Ella.
- (a) How many tickets did the 3 girls sell?
- (b) How much money did the 3 girls collect altogether?

Ans : (a) _____ [3m]

Ans : (b) _____ [2m]

17. Mrs Tan wants to give some lollipops to her nieces. If she gives each niece 4 lollipops, she will have 5 extras. If she gives each niece 6 lollipops, she will need 3 more.
- a) How many nieces does Mrs Tan have?
 - b) Find the minimum number of lollipops she has.

Ans : (a) _____ [3m]

Ans : (b) _____ [2m]

18. Fatimah spent \$5 200 on some blouses and shirts. The amount she spent on shirts was the same as the amount she spent on blouses. The ratio of the number of shirts bought to the number of blouses bought was 4 : 5. Each blouse cost \$13 more than each shirt. How many blouses did Fatimah buy?

shirt

blouse

Ans : _____ [5m]

End-of-Paper



ANSWER SHEET

EXAM PAPER 2011

SCHOOL : NAN HUA
SUBJECT : PRIMARY 5 MATHEMATICS

TERM : SA1

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

- 16)3022011 17)2.05am 18)5.38 19)47873 20)10 more
 21)B and C 22)2 h 12 min 23)1000 visitors 24)12587 25)200°
 26)2:6:15 27)1/3 28)150 29)2/9 30)3 days

Paper 2

1) $2u \rightarrow 18\text{kg}$

$1u \rightarrow 18\text{kg} \div 2 = 9\text{kg}$

$7u \rightarrow 9\text{kg} \times 7 = 63\text{kg}$

2) $12 - 3 - 3 = 6$

$6 \times 4 = 24\text{ cm}$

3) $12 + 15 = 27$

$36 - 27 = 9$

4) $48 \times 25 = 1200$

$16 \times 25 = 200$

2

$200 \times 3 = 600$

$1200 - 600 = 600\text{m}^2$

6) $42 - 12 = 30$

$3u \rightarrow 30$

$1u \rightarrow 30 \div 3 = 10$

$10 \times 4 = 40$

$42 - 40 = 2\text{kg}$

7) square A : square B

5 : 6

$1/3 \times 6 = 2$

$5 + 6 - 2 = 9$

shaded part : total area

2 : 9

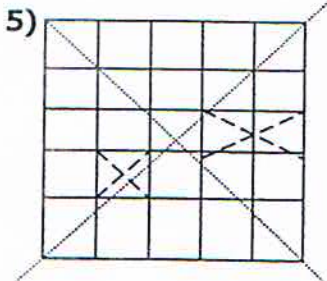
8) $36 \times 4 = 144$

$144 + 12 = 156\text{ children}$

9) $2u \rightarrow 80$

$1u \rightarrow 40$

$9u \rightarrow 40 \times 9 = \360



10) $200 \div 2 = 100$
 $6 \times 100 = \$600$

11) $7 - 2 = 5$
 $5u \rightarrow 60$
 $1u \rightarrow 12$
 $12u \rightarrow 144$

12) a) $6/30 + 5/30 = 11/30$
 The missing value of pattern number 4 is $11/30$

b) $1/7 + 1/8 = 15/56$
 The expression for pattern number 6 is $15/56$

c) $199 \rightarrow 1/99$ $9900 \rightarrow 1/100$
 The expression that gives a value of $199/990$ is $1/99 + 1/100$
 $99 - 1 = 98$
 The pattern number is 98

13) $21 + 21 = 42$
 $42 - 10 = 32$
 $32 + 7 = 39$

There were 39 passengers when the bus left the bus terminal.

14) No. of \$2n	value	no. of \$10 notes	value	total	✓ / X
36	72	36	360	432	X
48	96	24	240	336	X
42	84	30	300	384	X
40	80	32	320	400	✓

She received 40 \$2 note

15) a) $10 - 3 = 7$
 7 children pay $\rightarrow 46 - 25 = 21$
 1 children pay $\rightarrow 21 \div 7 = 3$

The cost of a child's ticket is \$3

b) $3 \times 10 = 30$
 $46 - 30 = 16$
 $16 \div 2 = 8$
 $8 \times 5 = 40$

The cost of 5 adult ticket is \$40

16) a) $6 - 2 = 4$
 $4u \rightarrow 32$
 $1u \rightarrow 32 \div 4 = 8$
 $9u \rightarrow 8 \times 9 = 72$

The 3 girls sold 72 tickets

b) $72 \times 10 = 720$
 They collected \$720

17) a) $5 + 3 = 8$
 $6 - 4 = 2$
 $8 \div 2 = 4$

She has 4 nieces

b) $4 \times 4 = 16$
 $16 + 5 = 21$
 She has 21 lollipops

18) $5200 \div 2 = 2600$
 $2600 \div 4 = 650$
 $2600 \div 5 = 520$
 $650 - 520 = 130$
 $130 \div 13 = 10$
 $10 \times 5 = 50$

She bought 50 blouses