

SINGAPORE CHINESE GIRLS' SCHOOL

FIRST SEMESTRAL ASSESSMENT 2013

PRIMARY 6

MATHEMATICS  
PAPER 1

BOOKLET A

Name : \_\_\_\_\_ ( )

Class : Primary 6 SY/C/G/SE/P

		Marks attained	Max Mark
Paper 1	Booklet A		20
	Booklet B		20
Paper 2			60
Total Marks			100

Parent's Signature

15 Questions  
20 Marks

Total Time for Booklets A and B: 50 min

**INSTRUCTIONS TO CANDIDATES**

Do not open this booklet until you are told to do so.

Follow all instructions carefully.

Answer all questions.

You are not allowed to use a calculator

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

---

1 In 9 023.154, the digit 4 is in the \_\_\_\_\_ place.

- (1) hundreds
- (2) ones
- (3) tenths
- (4) thousandths

2 The mass of a chair is approximately \_\_\_\_\_ g.

- (1) 30
- (2) 300
- (3) 3
- (4) 3000

3 If  $\heartsuit + \heartsuit + \heartsuit + \heartsuit = 60$  and  $\heartsuit + \clubsuit = 150$ , what is the value of  $\clubsuit$ ?

- (1) 15
- (2) 90
- (3) 135
- (4) 210

4 Evaluate  $\frac{4}{9} \div \frac{2}{3}$

(1)  $\frac{4}{9} \times \frac{2}{3}$

(2)  $\frac{4}{9} \times \frac{3}{2}$

(3)  $\frac{9}{4} \times \frac{2}{3}$

(4)  $\frac{9}{4} \times \frac{3}{2}$

5 The perimeter of a square is 24 cm. What is its area?

(1) 6 cm<sup>2</sup>

(2) 12 cm<sup>2</sup>

(3) 36 cm<sup>2</sup>

(4) 48 cm<sup>2</sup>

6 Which of the following is equal to  $\frac{1}{2}\%$ ?

(1) 0.005

(2) 0.5

(3) 5.0

(4) 50.0

7  $5 \times \frac{1}{8}$  is the same as \_\_\_\_\_.

(1)  $\frac{6}{8}$

(2)  $\frac{51}{8}$

(3)  $\frac{1}{8} \times \frac{1}{8} \times \frac{1}{8} \times \frac{1}{8} \times \frac{1}{8}$

(4)  $\frac{1}{8} + \frac{1}{8} + \frac{1}{8} + \frac{1}{8} + \frac{1}{8}$

8  $3z + 4 + 4z - 3 =$  \_\_\_\_\_

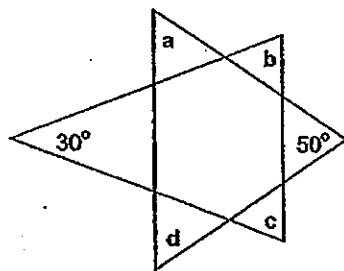
(1)  $7z - 7$

(2)  $7z + 7$

(3)  $7z + 1$

(4)  $7z - 1$

9 The figure below is made up of two triangles.  
Find the value of  $\angle a + \angle b + \angle c + \angle d$ .



(1)  $130^\circ$

(2)  $150^\circ$

(3)  $280^\circ$

(4)  $310^\circ$

10 Mr. Tan cycled 10 km in 30 minutes. What was his cycling speed in km/h?

- (1) 3 km/h
- (2) 20 km/h
- (3) 300 km/h
- (4) 600 km/h

11 A string 6.3 m long is cut into two pieces in the ratio 4 : 1.  
Find the length of the longer piece.

- (1) 1.2 m
- (2) 1.26 m
- (3) 2.3 m
- (4) 5.04 m

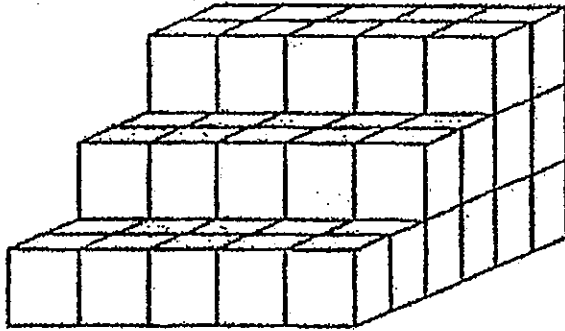
12  $46 \times 76 = 46 \times 32 + 46 + 46 \times \underline{\hspace{2cm}}$

- (1) 73
- (2) 46
- (3) 44
- (4) 43

13 Which one of the following is smaller than  $\frac{1}{3}$  but larger than  $\frac{1}{8}$  ?

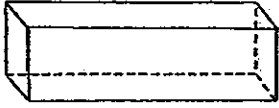
- (1) 0.12
- (2) 0.25
- (3) 0.375
- (4) 0.667

- 14 The figure below is made up of cubes of the same size. What is the least number of cubes that must be added to form a cuboid?

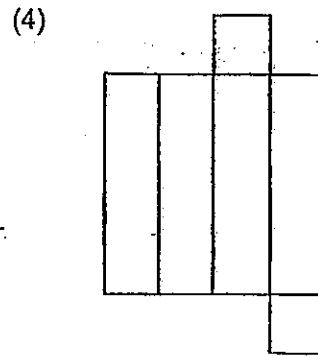
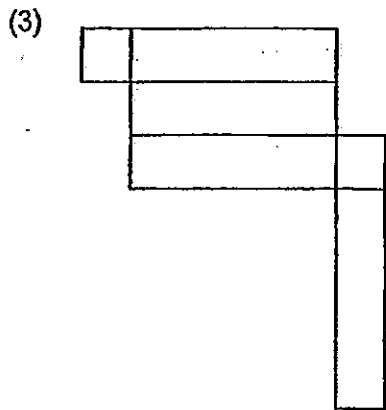
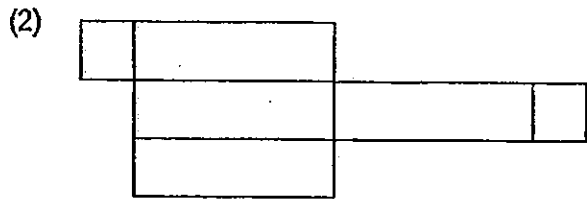
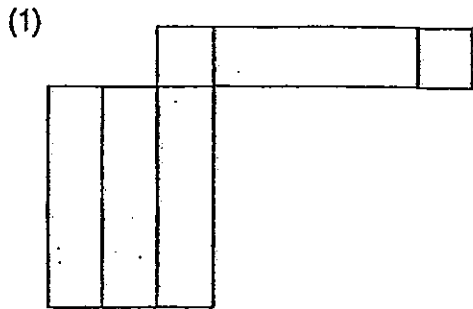


- (1) 10
- (2) 20
- (3) 30
- (4) 40

15 The figure shows a solid.



Which of the following is not the net of the solid?



SINGAPORE CHINESE GIRLS' SCHOOL

FIRST SEMESTRAL ASSESSMENT 2013

PRIMARY 6

MATHEMATICS  
PAPER 1

BOOKLET B

Name : \_\_\_\_\_ ( )

Class : Primary 6 SY/C/G/

Paper 1	Mark attained	Max Mark
Booklet B		20

15 Questions  
20 Marks

Total Time for Booklets A and B: 50 min

**INSTRUCTIONS TO CANDIDATES**

Do not open this booklet until you are told to do so.

Follow all instructions carefully.

Answer all questions.

You are not allowed to use a calculator



**Booklet B**

Name: \_\_\_\_\_ ( ) Class: P6 SY/C/G/SEP

Do not write  
in this  
column

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 down all the common factors of 6 and 12.

Answer: \_\_\_\_\_

---

17 Find the value of  $3\frac{1}{4} - 1\frac{7}{12}$ . (Give your answer in the simplest form.)

Answer: \_\_\_\_\_

---

18 The number of books in a library is 240 000 when rounded off to the nearest thousand. What is the largest possible number of books in the library?

Answer: \_\_\_\_\_

3

- 19 Which of the following letters have more than one line of symmetry?

Do not write  
in this  
column

**PINES**

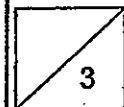
Answer: \_\_\_\_\_

- 20 Mrs Tan's age is  $\frac{9}{2}$  of her daughter's age. Find the ratio of her daughter's age to their total age.

Answer: \_\_\_\_\_

- 21 Susan donated  $\frac{3}{10}$  of her salary to charity. She spent  $\frac{2}{5}$  of it. What percentage of her salary had she left?

Answer: \_\_\_\_\_ %



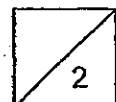
22 Find the value of  $\frac{15m}{5}$  when  $m = 3$ .

Do not write  
in this  
column

Answer: \_\_\_\_\_

23 Express 3 litres 5 millilitres in litres.  
(Express your answer as a decimal.)

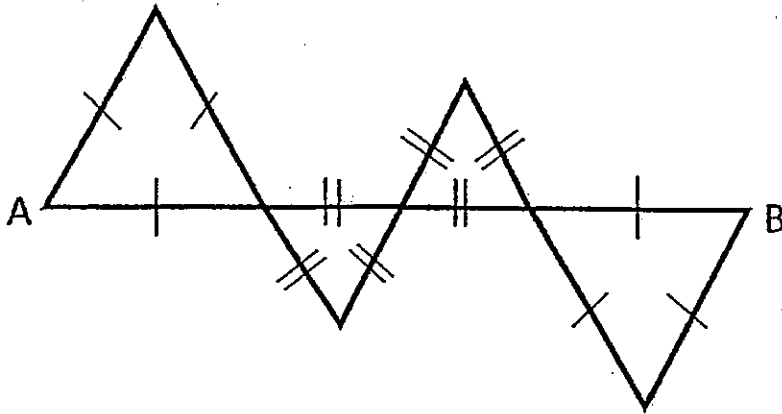
Answer: \_\_\_\_\_ litres



- 24 The figure is made up of four equilateral triangles, 2 big and 2 small triangles resting on the line AB.

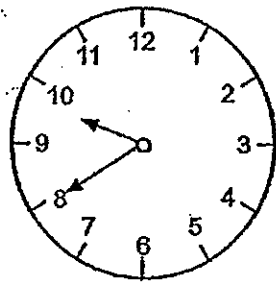
Do not write  
in this  
column

Given that the length of AB is 20 cm, find the perimeter of the figure.

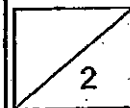


Answer: \_\_\_\_\_ cm

- 25 The clock below shows 9.40 p.m. What time will it show when the minute hand moves through three right angles?



Answer: \_\_\_\_\_ pm



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

Do not write  
in this  
column

(10 marks)

---

26 Clarice is  $(3y + 2)$  years old and she is 3 years younger than her brother, Edrick. How old will Edrick be in 17 years' time?

Answer: \_\_\_\_\_ years old

---

27 Jaime took 40 minutes to drive from point A to point B at an average speed of 90 km/h. Rachel covered the same distance in 30 minutes. What was Rachel's average speed?

Answer: \_\_\_\_\_ km/h

---

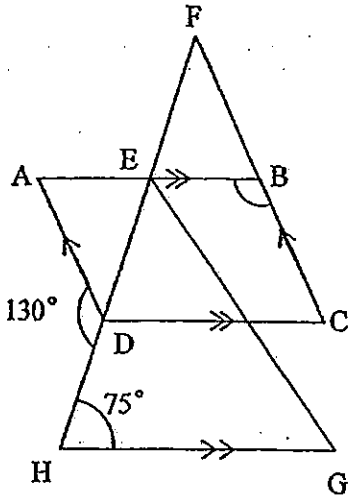
28 When 9 is added to  $\frac{3}{8}$  of a number, the result is 24. What is the number?

Answer: \_\_\_\_\_



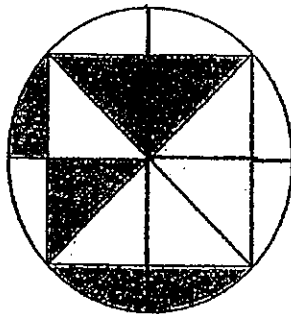
- 29 In the figure below, not drawn to scale, ABCD is a parallelogram. CDF and GHE are triangles. HG is parallel to DC and AB.  $\angle DHG = 75^\circ$  and  $\angle ADH = 130^\circ$ . Find  $\angle ABC$ .

Do not write  
in this  
column

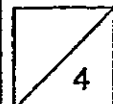


Ans: a) \_\_\_\_\_°

- 30 Find the ratio of the shaded region to the unshaded region.



Ans: \_\_\_\_\_



SINGAPORE CHINESE GIRLS' SCHOOL

FIRST SEMESTRAL ASSESSMENT 2013

PRIMARY 6

MATHEMATICS

PAPER 2

Name : \_\_\_\_\_ ( )

Class : Primary 6 SY/~~C~~G/SE/P

<b>Paper 2</b>	<b>Mark</b>	<b>Max Mark</b>	<b>Parent's Signature</b>
		<b>60</b>	

18 Questions  
60 Marks

Total Time For Paper 2: 1 h 40 min

**INSTRUCTIONS TO CANDIDATES**

Do not open this booklet until you are told to do so.

Follow all instructions carefully.

Answer all questions.

You are allowed to use the calculator

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

Do not write in this column

1 The table below shows the rental charges of bicycles.

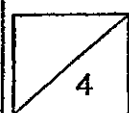
RENTAL CHARGES	
For the first hour	\$7.00
For every additional half an hour or part thereof	\$1.00

Jessica rented a bicycle from 12 noon to 6.35 p.m. the same day.  
How much did she pay for the rental charges?

Ans: \$ \_\_\_\_\_

2 At an electronics fair, a vacuum cleaner was on offer. Mrs Tan paid \$270 for it after a 40% discount. What was the original price of the vacuum cleaner?

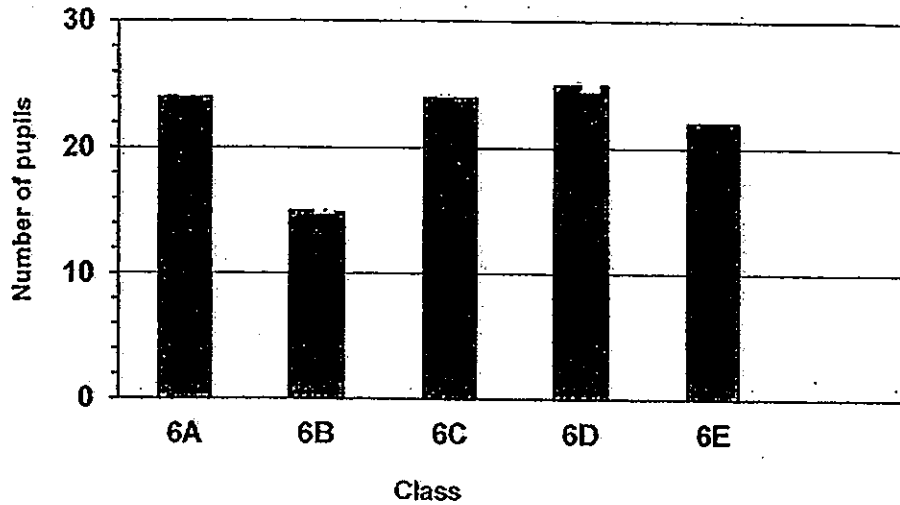
Ans: \$ \_\_\_\_\_





- 3 The graph below shows the number of pupils who passed a Math test. There were 30 pupils in each of the 5 classes. What percentage of pupils failed the test? (Express your answer as a fraction in its simplest form.)

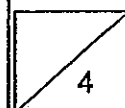
Do not write  
in this  
column



Ans: \_\_\_\_\_ %

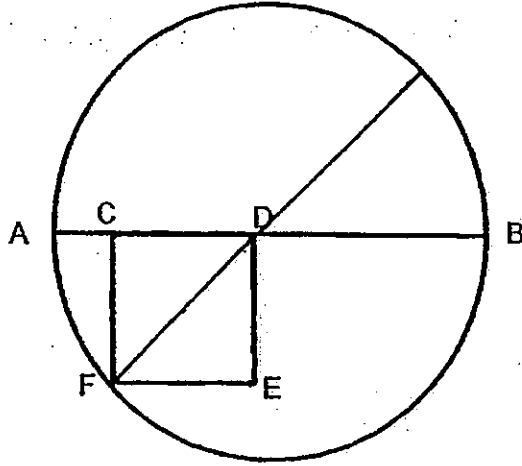
- 4 I am thinking of a fraction. The sum of the numerator and denominator is 19. When I add 8 to the denominator, the fraction becomes  $\frac{1}{2}$ . What is the fraction I am thinking of?

Ans: \_\_\_\_\_

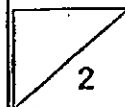


- 5 The figure below, shows a square CDEF with Point D touching the centre of the circle. Given that Point F touches the circumference of the circle and line CE is 8 cm. Find the diameter of the circle.

Do not write  
in this  
column



Ans: \_\_\_\_\_



Questions 6 to 18, show your working clearly in the space below each question and write your answers in the space provided. The number of marks awarded is shown in the brackets [ ] at the end of the question or part-question.

Do not write  
in this  
column

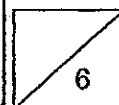
(50 marks)

- 6 At a conference,  $\frac{4}{5}$  of the participants were Singaporeans and the rest were Malaysians. After 20 Singaporeans had left the conference, another 20 Malaysians joined in. Hence the number of Singaporeans became  $\frac{8}{15}$  of the total number of participants. How many Singaporeans were there at the start of the conference?

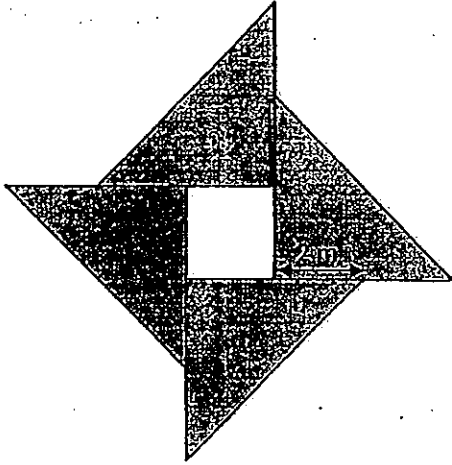
Ans : \_\_\_\_\_ [3]

- 7 There were 120 participants in a baking competition.  $\frac{1}{2}$  of them won either the gold or the silver award.  $\frac{3}{4}$  of them received the silver or the commendation award. How many of them received the silver award?

Ans : \_\_\_\_\_ [3]



- 8 The figure below is not drawn to scale. It is made up of 4 identical right-angled isosceles triangles. There is a square in the centre. The shaded area of the figure is  $72 \text{ m}^2$ . Find the side of the square.

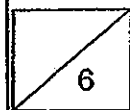


Do not write  
in this  
column

Ans : \_\_\_\_\_ [3]

- 
- 9 A bus can carry 30 adults or 45 children. If the bus has already 20 adults and 10 children aboard, how many more children can the bus carry?

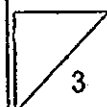
Ans : \_\_\_\_\_ [3]



- 10 Christina and Belinda saved \$800 altogether.  $\frac{1}{4}$  of Christina's saving was \$65 more than  $\frac{1}{5}$  of Belinda's savings. How much more money did Christina save than Belinda?

Do not write  
in this  
column

Ans : \_\_\_\_\_ [3]



11a Look at the pattern below. How many  are there in figure 16?

Do not write  
in this  
column



Figure 1



Figure 2

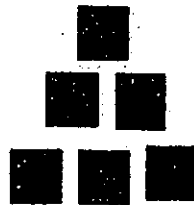


Figure 3

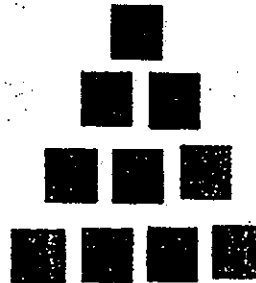


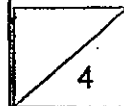
Figure 4

305472930547293054729.....

(b) Look at the pattern above, what will be the 79<sup>th</sup> digit?

Ans: (a) \_\_\_\_\_ [2]

(b) \_\_\_\_\_ [2]



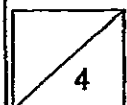
12 There were 1680 animals in John's farm and 20% more animals in Doug's farm. When an equal number of animals was sold by each farmer, the animals left in John's farm became 60% that of Doug.

- a) How many animals did Doug have at first?
- b) How many animals did John have in the end?

Do not write  
in this  
column

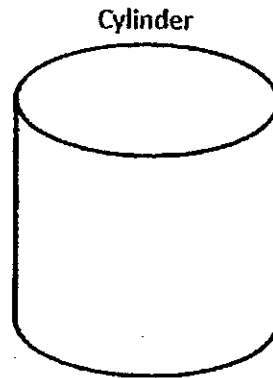
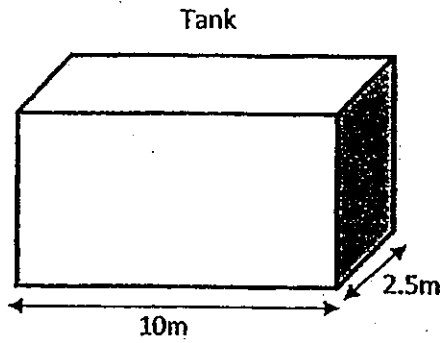
Ans: (a) \_\_\_\_\_ [1]

(b) \_\_\_\_\_ [3]

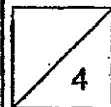


- 13 A rectangular tank measuring 10 m and 2.5 m wide is completely filled with water. When 30% of the water from the rectangular tank is poured into an empty cylindrical container, the container is only 25% full. The capacity of the cylindrical container is  $10\text{m}^3$  more than that of the rectangular tank. Find the height of the tank.

Do not write  
in this  
column



Ans : \_\_\_\_\_ [4]





- 14 Peter bought some items to sell at a carnival.  $\frac{3}{5}$  of the items were key chains and the rest were mugs. He spent a total of \$520 on all the items. In total, he spent \$280 more on mugs than on key chains. Given that each mug cost \$8 more than each key chain, what was the cost of each mug?

Do not write  
in this  
column

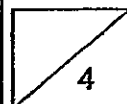
Ans : \_\_\_\_\_ [4]



- 15 Linda had \$85 more than Jessica. Michelle had \$36 more than the total amount of what Linda and Jessica had. If Michelle had \$974 more than Linda, how much money did Michelle have?

Do not write  
in this  
column

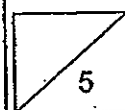
Ans : \_\_\_\_\_ [4]



- 16 100 people went for a health check at a polyclinic. Their average mass was 65 kg. Given that the average mass of the women was 50 kg and the average mass of men was 70 kg, how many men were there?

Do not write  
in this  
column

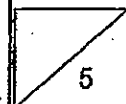
Ans : \_\_\_\_\_ [5]



- 17 Michael had 80% as many marbles as Josh at the start of a game. Michael lost 75% of his marbles to Josh during the first game. Josh then lost 25% of his marbles to Michael during the second game. If Michael had 258 marbles at the end of the second game, how many marbles did Josh have at first?

Do not write  
in this  
column

Ans : \_\_\_\_\_ [5]



18 Rachel, Amber and Christine each made some cards for sale at a school carnival.

At first, Rachel made 1365 cards more than Amber.

Then Rachel sold 420 cards and made another 175 more.

Christine sold 140 cards and made another 350 more.

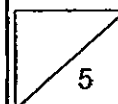
Amber made more cards and the number of her cards doubled.

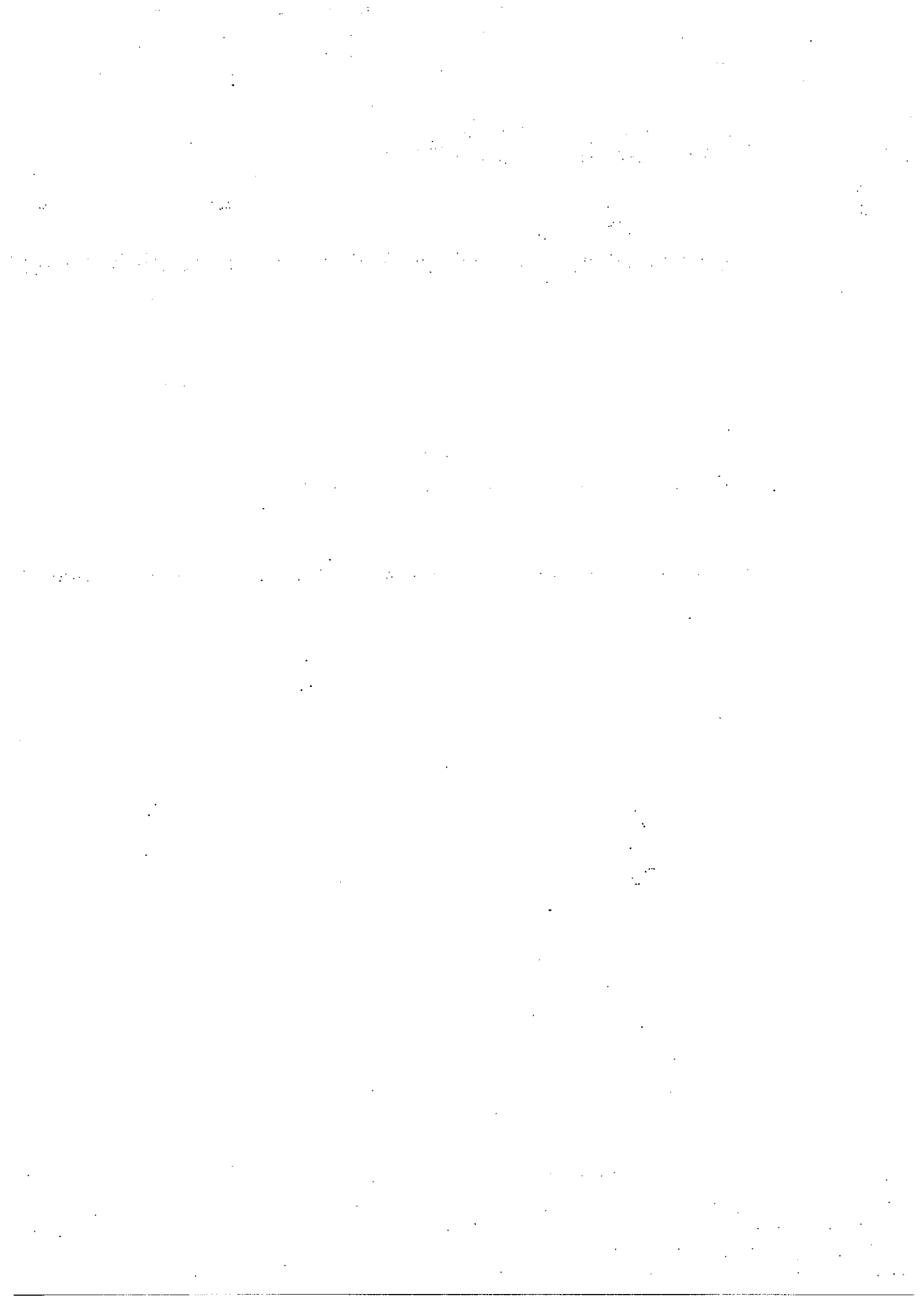
In the end, all three girls had the same number of cards.

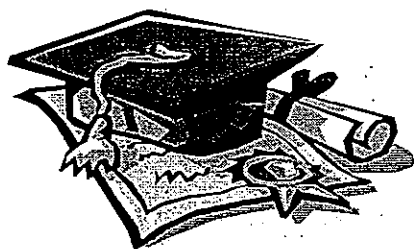
Find the number of cards Christine had at first.

Do not write  
in this  
column

Ans: \_\_\_\_\_ [5]







# ANSWER SHEET

**EXAM PAPER 2013**

**SCHOOL : SCGS**

**SUBJECT : PRIMARY 6 MATHEMATICS**

**TERM : SA1**

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

16)1,2,3,6

17) $1\frac{2}{3}$

18)240499

19)I

20)2:11

21)30%

22)9

23)3.005L

24)60cm

25)10.25pm

26) $(3y+22)$

27)120km/h

28)40

29) $125^\circ$

30)3:5

## Paper 2

1)12pm to 1pm→\$7

1pm to 6pm→\$1 x10 = \$10

6pm to 6.30pm→\$1

6.30pm to 6.35pm→\$1

\$7+\$10+\$1+\$1 = \$19

2)Discount→40%

Pay →100% - 40% = 60%

60% →\$270

1% →\$270 ÷ 60 = \$4.50

Original price→100%

100% →\$4.50 x 100 = \$450

3)  $26\frac{2}{3}$

4)  $1u + 2u = 3u$

$3u \rightarrow 27$

$1u \rightarrow 27 \div 3 = 9$

Numerator  $\rightarrow 9$

Denominator  $\rightarrow (9 \times 2) - 8 = 10$

Fraction  $\rightarrow 9/10$

5)  $8 + 8 = 16\text{cm}$

6)  $4u \rightarrow 20$

$1u \rightarrow 20 \div 4 = 5$

$12u \rightarrow 5 \times 12 = 60$  Singaporeans

7)  $120 \div 2 = 60$

Gold or silver  $\rightarrow 60$

$120 \div 4 \times 3 = 90$

Silver or commendation  $\rightarrow 90$

$60 + 90 = 150$

$150 - 120 = 30$

Silver  $\rightarrow 30$

Gold  $\rightarrow 60 - 30 = 30$

Commendation  $\rightarrow 90 - 30 = 60$

Ans: 30 participants.

8) 4 Triangle  $\rightarrow 72$

1 Triangle  $\rightarrow 72 \div 4 = 18$

$18 \times 2 = 36$

Breath  $\times$  Height  $\rightarrow 36$

Breath  $\rightarrow \sqrt{36} = 6$

Height  $\rightarrow \sqrt{36} = 6$

1 side of square  $\rightarrow 6 - 2 = 4\text{m}$

9) 30 adults = 45 children

$\downarrow \div 15$   
2 adults = 3 children

$\downarrow \times 10$   
20 adults = 30  $\times 10 = 30$  children

$30 + 10 = 40$

$45 - 40 = 5$  more children

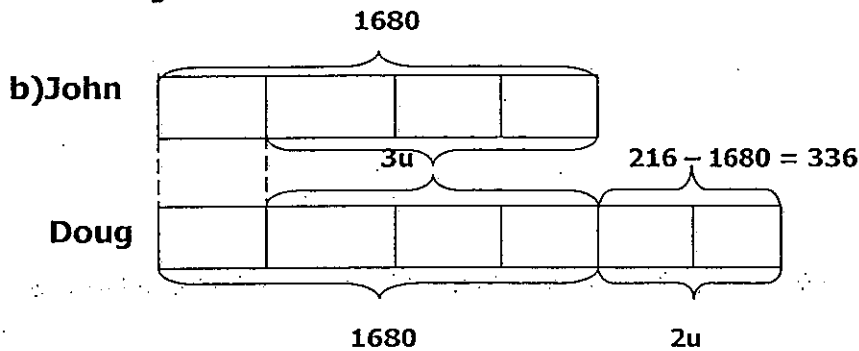


10)  $65 \times 5 = 325$   
 $800 + 325 = 1125$   
 $5u + 4u = 9u$

$9u \rightarrow 1125$   
 $1u \rightarrow 1125 \div 9 = 125$   
 C save  $\rightarrow 125 \times 4 = 500$   
 B save  $\rightarrow 800 - 500 = 300$   
 Diff  $\rightarrow 500 - 300 = \$200$

11) a) 136  
 b) 0

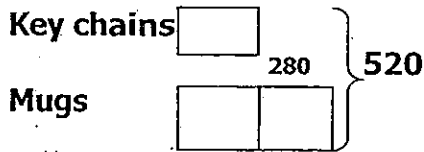
12) a) John  $\rightarrow 1680$   
 Doug  $\rightarrow 1680 \div 5 = 5 \times 6 = 2016$



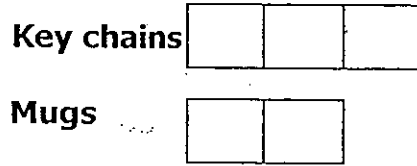
$2u \rightarrow 336$   
 $1u \rightarrow 336 \div 2 = 168$   
 Doug  $\rightarrow 168 \times 5 = 840$  animals  
 John  $\rightarrow 168 \times 3 = 504$  animals

13)  $25\% = \frac{1}{4}$   
 $\frac{3}{10}$  Rect =  $\frac{1}{4}$  cylinder  
 $\frac{3}{10}$  Rect =  $\frac{3}{12}$  cylinder  
 Rect  $\rightarrow 10u$   
 Cylinder  $\rightarrow 12u$   
 $12u - 10u = 2u$   
 $2u \rightarrow 10m^3$   
 $1u \rightarrow 10 \div 2 = 5m^3$   
 Capacity of rect  $\rightarrow 10 \times 5 = 50m^3$   
 $50 \div 10 \div 2.5 = 2m$   
 Height of rect  $\rightarrow 2m$

14) Amount spent



Number



$520 - 280 = 240$

Spent on key chains  $\rightarrow 240 \div 2 = 120$

Spent on mugs  $\rightarrow 120 + 280 = 400$

1u of key chains  $\rightarrow 120 \div 3 = 40$

1u of mugs  $\rightarrow 400 \div 2 = 200$

$200 - 40 = 160$

$160 \div 8 = 20$

1u  $\rightarrow 20$

2u  $\rightarrow 20 \times 2 = 40$

$400 \div 40 = \$10$

15)  $974 - 36 = 938$

1u  $\rightarrow 938$

2u  $\rightarrow 938 \times 2 = 1876$

$1876 + 85 + 36 = \$1997$

16) Average  $\rightarrow 65$

Total  $\rightarrow 65 \times 100 = 6500$

$6500 - 6000 = 500$

$70 - 50 = 20$

$500 \div 20 = 25$

Men  $\rightarrow 25 + 50 = 75$

Women  $\rightarrow 50 - 25 = 25$

Ans: 75 men

17)  $3u \rightarrow 258$

1u  $\rightarrow 258 \div 3 = 86$

5u  $\rightarrow 86 \times 5 = 430$  marbles

18)  $1365 - 420 + 175 = 1120$

1u Amber  $\rightarrow 1120$

2u Amber  $\rightarrow 1120 \times 2 = 2240$

Amber in the end  $\rightarrow 2240$

$2240 - 350 + 140 = 2030$