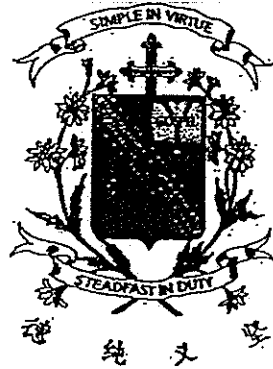


Name : _____ ()

Class : Primary 6 _____

CHIJ ST NICHOLAS GIRLS' SCHOOL (PRIMARY)



Primary 6

2014 Semestral Assessment One

Mathematics

Paper 1

Booklet A

12 May 2014

Total Time for Booklets A and B : 50 minutes

INSTRUCTIONS TO CANDIDATES

Do not turn over this page until you are told to do so.

Follow all instructions carefully.

Answer all questions.

The use of calculators is NOT allowed.

This booklet consists of 7 printed pages including the cover page.

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. The height of the classroom door in CHIJ St Nicholas Girls' School is about _____.

1) 1.5 m

2) 2 m

3) 3.5 m

4) 4 m

2. Round off 58.099 to the nearest hundredth.

1) 58.1

2) 58.10

3) 59.1

4) 59.10

3. 32.07 km is the same as _____ m.

1) 3 207

2) 3 270

3) 32 070

4) 32 700

4. The sides of a triangle are in the ratio 5 : 12 : 13. Express the perimeter of the triangle as a fraction of the longest side.

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

5. There were as many men as women at a party. $\frac{1}{6}$ of the men and $\frac{1}{3}$ of the women won prizes. What fraction of the people at the party won prizes?

- 1) $\frac{2}{9}$
- 2) $\frac{1}{4}$
- 3) $\frac{1}{2}$
- 4) $\frac{3}{4}$

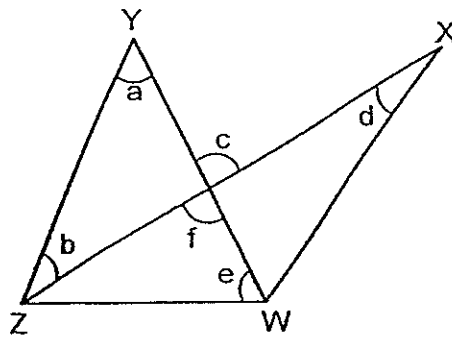
6. If every 4 mangoes cost \$ $8a$, what is the cost of 12 such mangoes?

- 1) \$ $2a$
- 2) \$ $24a$
- 3) \$ $32a$
- 4) \$ $96a$

7. The average of 4 numbers is 18. Three of the numbers are 12, 18 and 27. What is the 4th number?

- 1) 15
- 2) 63
- 3) 72
- 4) 84

8. In the figure, not drawn to scale, WY and XZ are straight lines. Which of the two angles given in the figure are equal?



- 1) $\angle a$ and $\angle d$
- 2) $\angle b$ and $\angle d$
- 3) $\angle c$ and $\angle f$
- 4) $\angle e$ and $\angle f$

9. Sally walked from her home to the park. She walked at 4 km/h and took 15 minutes to reach the park. If she walked 1 km/h slower, how long would she take to reach the park?

1) $\frac{1}{5}$ h

2) $\frac{1}{4}$ h

3) $\frac{1}{3}$ h

4) $\frac{3}{4}$ h

10. At a sale, Lily paid \$20 for a book after getting a discount of \$5. What was the percentage discount?

1) 20%

2) 25%

3) 60%

4) 75%

11. Dolly is x years old now. Her mother is 25 years older than she is. What is their total age in 6 years' time?

1) $(x + 31)$ years

2) $(x + 37)$ years

3) $(2x + 31)$ years

4) $(2x + 37)$ years

12. The sides of a square are increased by 10% each. What is the percentage increase in the area of the square?

1) 140%

2) 121%

3) 21%

4) 20%

13. The ratio of the number of boys to the number of girls in a kids club was 5 : 4. When 24 boys left the club, the membership decreased to $\frac{2}{3}$ of its original size. How many boys were there at first?

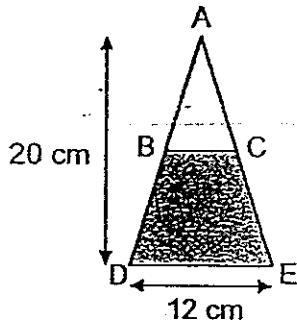
1) 32

2) 40

3) 48

4) 72

14. The figure below is not drawn to scale. The area of triangle ABC is $\frac{2}{5}$ of the area of triangle ADE. What is the area of the shaded part?



- 1) 48 cm^2
 - 2) 60 cm^2
 - 3) 72 cm^2
 - 4) 120 cm^2
15. Mr Lim drove at a speed of 82 km/h for 2 hours. Then he changed his speed to 60 km/h for another hour. What was the total distance he travelled?

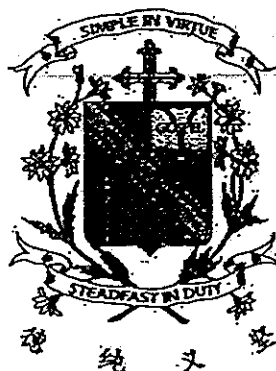
- 1) 142 km
- 2) 164 km
- 3) 202 km
- 4) 224 km

**** END OF BOOKLET A****

Name : _____ ()

Class : Primary 6 _____

CHIJ ST NICHOLAS GIRLS' SCHOOL (PRIMARY)



Primary 6

2014 Semestral Assessment One

Mathematics

Paper 1

Booklet B

12 May 2014

Booklet A	20
Booklet B	20
Total (Paper 1)	40

Total Time for Booklets A and B : 50 minutes

INSTRUCTIONS TO CANDIDATES

Do not turn over this page until you are told to do so.

Follow all instructions carefully.

Answer all questions.

The use of calculators is NOT allowed.

This booklet consists of 7 printed pages including the cover page.

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)

Do not write in this space

16. Mr Tan paid about \$150 000 for a car. This amount has been rounded off to the nearest ten thousand dollars. What could be the highest possible price of the car?

Ans : \$ _____

17. What decimal is exactly between 1.02 and 1.05?

Ans : _____

18. Five children shared 3 whole pizzas equally. What fraction of the pizzas did 2 of them get? Express your answer as a mixed number in the simplest form.

Ans : _____



19. What is the value of $2\frac{1}{7} + \frac{1}{4}$?

Give your answer in the simplest form.

Do not
write in
this space

Ans : _____

20. The table below shows the number of marks each girl scored for a Mathematics test in the years 2013 and 2014.

Name	Marks (2013)	Marks (2014)
Abigail	60	80
Benilda	80	100
Christine	80	96

Who improved her marks by 20% in the year 2014?

Ans : _____

21. What is the missing number in the box?

$$15:18 = \boxed{?} : 12$$

Ans : _____



22. Simplify $15 + 12a + 8 - 5a - 3$.

Do not
write in
this space

Ans :

23. Express 1060 cm in metres.
Give your answer as a decimal.

Ans : _____ m

24. Mrs Sharufa is less than 50 years old now. Her present age is a multiple of 9. Last year, her age was a multiple of 5. How old is Mrs Sharufa now?

Ans : _____ years

25. A car travelled at an average speed of 90 km/h. How much time would the car need to travel 30 km?

Ans : _____ min



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

Do not write in this space

26. Find the average of all the even numbers between 11 and 23.

Ans : _____

27. Kelly took part in a quiz which she had to answer 30 questions. 5 marks were awarded for each correct answer and 2 marks were deducted for each wrong answer. Kelly scored a total of 94 marks for the quiz. How many mistakes did she make?

Ans : _____



28. A piece of wire 40 cm long is bent to form a square. A second piece of wire, twice as long as the first piece, is bent to form a rectangle of breadth 10 cm. What is the ratio of the length of the square to the length of the rectangle?

Do not
write in this
space

Ans : _____

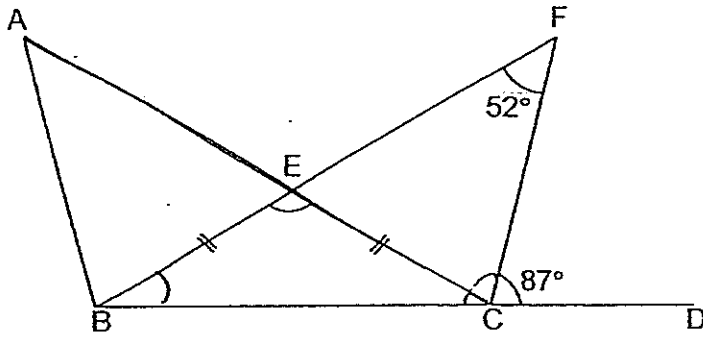
29. Karen cycles at an average speed of 10 km/h from her house to her school. Her school is 2 km away from her house. At what time must Karen set off from her house in order to reach her school at 7.20 a.m.?

Ans: _____ a.m.



30. The figure below is not drawn to scale. BCE is an isosceles triangle. AC, BF and BD are straight lines. Find $\angle BEC$.

Do not write in this space



Ans : _____ °



****END OF PAPER 1****

Name : _____

Class : Primary 6 _____

CHIJ ST NICHOLAS GIRLS' SCHOOL (PRIMARY)



Primary 6

2014 Semestral Assessment One

Mathematics
Paper 2

12 May 2014

Paper 1	40
Paper 2	60
Total	100

Time : 1 hour 40 minutes

INSTRUCTIONS TO CANDIDATES

Do not turn over this page until you are told to do so

Follow all instructions carefully.

Answer all questions.

The use of an approved calculator is expected, where appropriate.

This booklet consists of 15 printed pages including the cover page.

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

Do not write in this space

1. Mary's height is y cm. John is 10 cm taller than Mary. Benny is 3 cm shorter than Mary. Find the total height of the three children.

Ans : _____ cm

2. At a fruit stall, the number of apples is $\frac{7}{10}$ of the number of pears. If 40% of the pears are sold, what percentage of the apples must be sold so that the number of apples and pears left at the stall is equal? Leave your answer as a mixed number.

Ans : _____ %

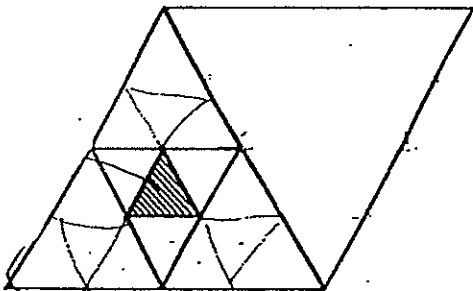


3. Vanessa spent $\frac{1}{6}$ of her monthly allowance on bus fare, $\frac{1}{3}$ of the remainder on food and \$18 on books. Then she had \$4.50 left. How much did she spend on food?

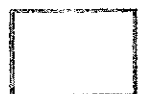
Do not write in this space

Ans : \$ _____

4. The figure below, not drawn to scale, is made up of equilateral triangles of different sizes. Given that the area of the shaded triangle is 4 cm^2 , what is the area of the figure?



Ans : _____ cm^2



5. Four children made the following statements.

Winnie : The average of Yasmin's mass and my mass is 29 kg.

Xania : I am the heaviest.

Yasmin : Zen is 2 kg lighter than Xania.

Zen : Our masses are in consecutive order.

What is the mass of Xania?

(Note: An example of 4 numbers in consecutive order is 5, 6, 7, 8.)

Do not
write in this
space

Ans : _____ kg

For questions 6 to 18, show your working clearly 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)

Do not write in this space

6. A plot of land with an area of 20 m^2 was divided into smaller plots of land with an area of $\frac{3}{8} \text{ m}^2$ each.
- (a) How many plots of land with area of $\frac{3}{8} \text{ m}^2$ were there?
- (b) What area of the original plot of land was left?

Ans : a) _____ [1m]

b) _____ [2m]



7. Willy wanted to buy a pair of sports shoes. He had only $\frac{3}{5}$ of the money. After his father gave him another \$16, he was still short of $\frac{3}{10}$ of the money. Then Willy decided to save \$2.40 a day. What is the least number of days that he would take to save to buy the pair of sports shoes?

Do not
write in
this
space

Ans : _____ [3m]



8. A car travelled at 70 km/h for $2\frac{1}{2}$ hours. Then it travelled at 84 km/h for $3\frac{1}{2}$ hours. What was its average speed for the whole journey?

Do not
write in this
space

Ans : _____ [3m]



9. k boys each rented a bicycle and went on an excursion for 5 hours. For each bicycle, the bicycle shop charged \$8 for the first hour and an hourly rate of \$5 for the subsequent hours.

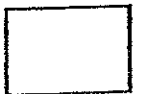
(a) Find, in terms of k , the cost of renting the bicycles for the excursion.

(b) The boys paid \$350 for the rental of the bicycles. Given that $k = 11$, how much change did the boys receive?

Do not
write in this
space

Ans : a) _____ [1m]

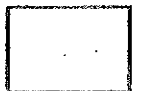
b) _____ [2m]



10. At a bus stop, $\frac{11}{12}$ of the passengers alighted from the bus and 15 people boarded the bus. In the end, the ratio of the number of passengers to the original number of passengers was 1 : 3. How many passengers were there originally?

Do not
write in this
space

Ans : _____ [3m]



11. A sum of \$2345 was distributed to Aaron, Bill and Cavin. $\frac{1}{2}$ of Aaron's share was $\frac{1}{3}$ of Bill's share. $\frac{1}{4}$ of Bill's share was $\frac{1}{5}$ of Cavin's share.

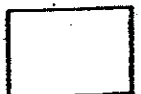
Do not write in this space

(a) What was the ratio of Aaron's share to Bill's share to Cavin's share?

(b) How much did Bill get?

Ans : a) _____ [1m]

b) _____ [3m]



12. Mr Ng earned a fixed monthly salary last year. He spent 25% of his salary in November. In December, he spent 50% less than what he spent in November.

- (a) If his total expenditure for the 2 months was \$960, what was his monthly salary last year?
- (b) If Mr Ng received a 5% increase in his salary this year, what would be his new salary?

Do not
write in this
space

Ans : a) _____ [2m]

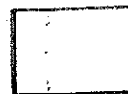
b) _____ [2m]



13. Mena has 4 times as many stickers as Pam plus 16 more. Mena has 8 times as many stickers as Nellie. Pam has 18 more stickers than Nellie. How many stickers does Pam have?

Do not write in this space

Ans : _____ [4m]



14. A pen cost \$2.10. Mrs Wee bought 38 pens in January and some pens in February. At the end of the two months, Mrs Wee spent a total of \$126 on the pens.

(a) Find the number of pens Mrs Wee bought in February.

(b) In March, the pens are sold at either \$2.10 each or \$5.50 for 3 pens. Find the least amount of money Mrs Wee needed to pay to buy the same number of pens she bought in February.

Do not
write in this
space

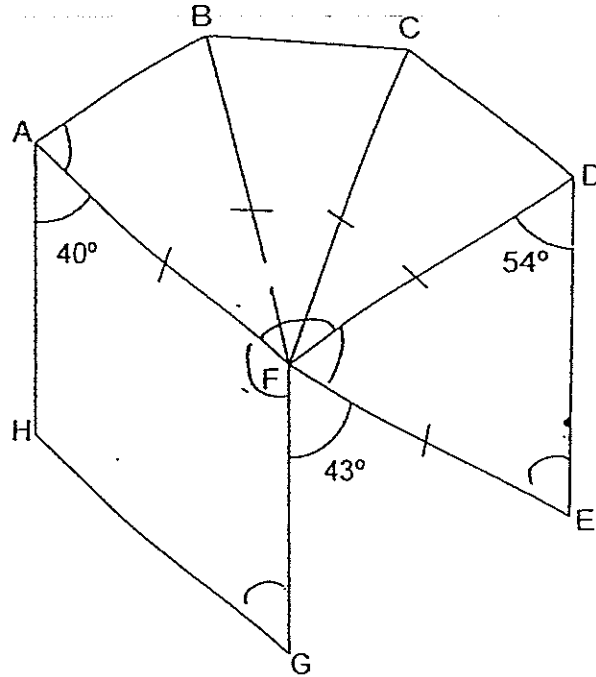
Ans : a) _____ [2m]

b) _____ [2m]



15. The figure, not drawn to scale, is made up of 4 triangles and a parallelogram AHGF. ABF, BCF and CDF are identical triangles. Find $\angle FAB$.

Do not write in this space



Ans : _____ [4m]



16. Mr Kamal took a total of $3\frac{5}{6}$ hours to drive from City A to City B. His average speed for the whole journey was 90 km/h. He travelled the first 40% of the journey at a speed of 92 km/h. The next 30% of the journey took him 50 minutes. At what speed did he travel the last part of the journey?

Do not
write in this
space

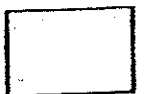
Ans: _____ [5m]



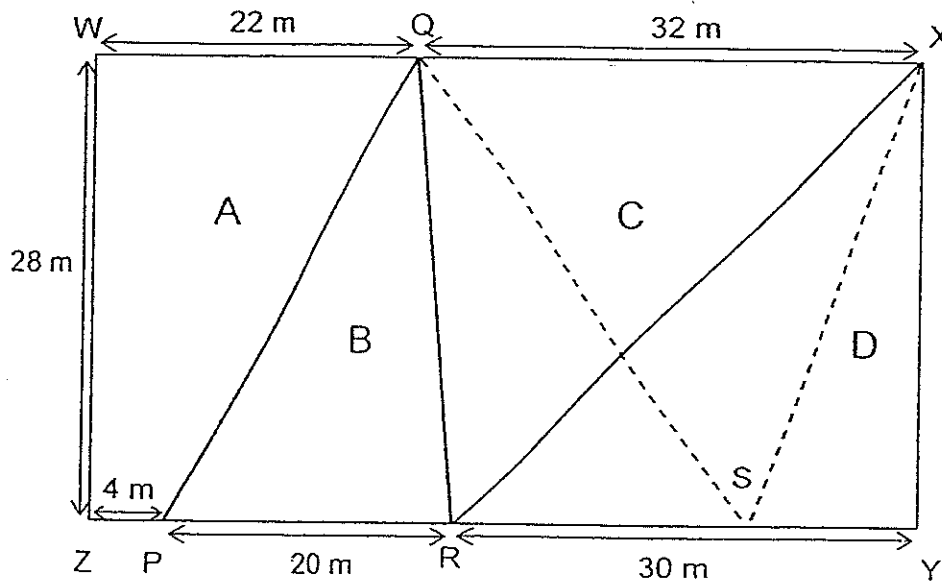
17. When Mr Lim started on his journey to Malaysia, he had 18.4ℓ of petrol in the petrol tank of his car. After travelling for a few hours, he found that he had only 4.8ℓ of petrol left. He then pumped in \$40 worth of petrol. The cost of the petrol is \$1.60 per litre. At the end of the journey, Mr Lim had 1.4ℓ of petrol left. If Mr Lim used $400 \text{ m}\ell$ of petrol for every 1 km travelled, what was the total distance travelled?

Do not
write in this
space

Ans : _____ [5m]



18. A rectangular hall, WXYZ, not drawn to scale, is partitioned into 4 areas, A, B, C and D.



Do not write in this space

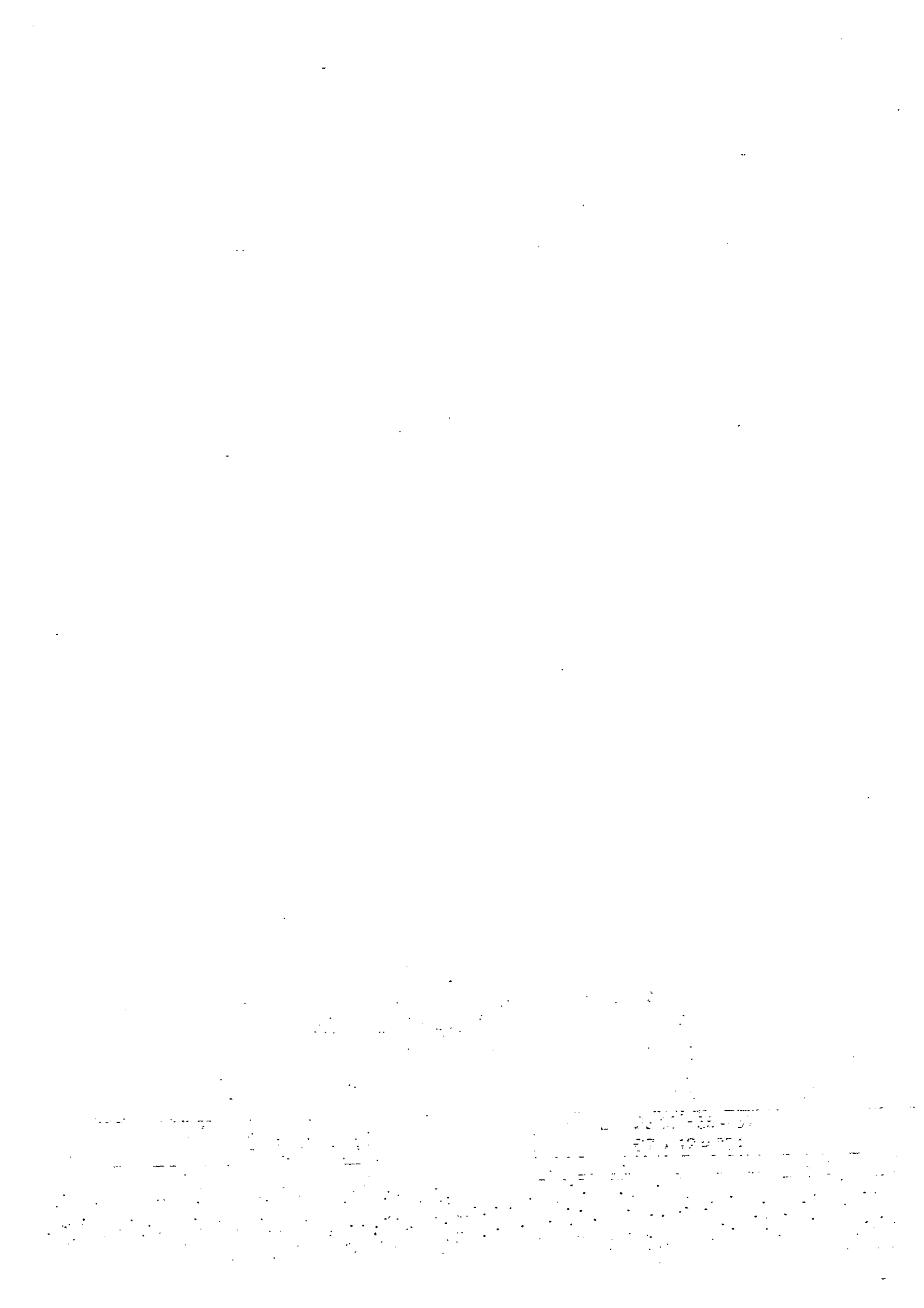
- (a) What is the area of A?
- (b) The area of B is doubled when Point R is moved to Point S. What is the ratio of the area of A to the new area of D?

Ans : a) _____ [2m]

b) _____ [3m]



**** END OF PAPER ****



EXAM PAPER 2014

LEVEL : PRIMARY 6
SCHOOL : ST. NICHOLAS
SUBJECT : MATHS
TERM : SA1

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

Q16 \$154 999

Q17 1.035

Q18 $1\frac{1}{5}$

Q19 $2\frac{11}{28}$

Q20 Christine

Q21 10

Q22 $20 + 7a$

Q23 10.6m

Q24 36 years

Q25 20min

Q26 17

Q27 8 mistakes

Q28 1:3

Q29 7.08a.m.

Q30 110°

PAPER 2

Q1	<p>Mary $\rightarrow y$ cm John $\rightarrow (y+10)$cm Benny $\rightarrow (y-3)$cm $(y+10+y+y-3)$ cm = $(3y + 7)$cm</p>
Q2	<p>A : P 7 : 10 7 : 6 (-40%) 14 : 12</p> <p>$14 - 2 = 2$ $2 \div 2 = 1$ $\frac{1}{7} \times 100\% = 14\frac{2}{7}\%$</p>
Q3	<p> </p> <p> $\frac{2}{3}R \rightarrow \\$4.50 + \\$18 = \\22.50 $\frac{1}{3}R \rightarrow \\$22.50 \div 2 = \\$11.25$ </p>
Q4	<p>Number of small = $16 \times 2 = 32$ Area of the figure = $32 \times 4\text{cm}^2 = 128\text{cm}^2$</p>
Q5	<p> </p> <p> $29\text{kg} \times 2 = 58\text{kg}$ $58\text{kg} - 2\text{kg} = 56\text{kg}$ $56\text{kg} \div 2 = 28\text{kg}$ $28\text{kg} + 3\text{kg} = 31\text{kg}$ </p>
Q6 (a)	<p> $\frac{1}{8}\text{m}^2 \Rightarrow 1\text{u}$ $\frac{3}{8}\text{m}^2 \Rightarrow 1\text{u} \times 3$ Can plant (area) = 3u </p> <p> $20\text{m}^2 \Rightarrow 20 \times 8$ 160 $\frac{160}{3} \Rightarrow 160 \div 3$ $= 53 \text{ R } 1$ </p>
(b)	<p>$1\text{u} \Rightarrow \frac{1}{8}\text{m}^2$</p>

Q7		$\frac{\text{Amt}}{\text{Bk}} \rightarrow \frac{3}{5} = \frac{6}{10}$ $\text{Amt after} \rightarrow 1 - \frac{3}{10} = \frac{7}{10}$ $7u - 6u = 1u$ $1u \Rightarrow \$16$ $10u \Rightarrow \$16 \times 10 = \160 <p>(final amt needed)</p> $6u \Rightarrow \$16 \times 6 = \96 <p>(Amt @ first)</p> $7u \Rightarrow \$96 + \$16 = \$112$ $\text{Amt needed} \Rightarrow \$160 - \$112 = \48 $\text{No of Pairs} \Rightarrow \$48 \div \$2.40 = 20$
Q8		$70 \times 2\frac{1}{2} = 175$ $84 \times 2\frac{1}{2} = 210$ $\text{Journey km} \rightarrow 210 + 175 = 385$ $\text{Time taken} \rightarrow 2\frac{1}{2} + 3\frac{1}{2} = 6$ $\text{Av speed} \rightarrow 385 \div 6 = 64\frac{1}{6}$
Q9	(a)	$5 - 1 = 4$ $1 \text{ boy} \rightarrow \$8 + \$5 \times 4 = \28 <p>(1 bike)</p> $11 \text{ boys} \rightarrow \$28 \times 11 = \$308$ <p>(11 bikes)</p>
	(b)	$11 \text{ boys} \rightarrow \$28 \times 11 = \$308$ $\text{change} \rightarrow \$350 - \$308 = \42
Q10		<p>End: Ori.</p> $\begin{array}{r} 1 : 3 \\ \times 4 \\ \hline 4 : 12 \end{array} \div 4$ $12u - 11u = 1u$ $10 \text{ ppl} \rightarrow 4u - 1u = 3u$ $10 \text{ ppl} \rightarrow 3u$ $5 \text{ ppl} \rightarrow 1u$ $12u \rightarrow 5 \times 12 = 60$
Q11	(a)	$A : B : C = 7$ $2 : 3$ $\begin{array}{r} 4 : 5 \\ \times 3 \\ \hline 8 : 12 : 15 \end{array} \div 5$
	(b)	$2345 \div 35 = 67$ $67 \times 12 = 804$

Q12	(a)	$\$960 \div 3 = \320 $\$320 \times 2 = \640 $\$640 \times 4 = \2560
	(b)	$\$2560 \times 105\% = \2688
Q13		$16 \div 8 = 2$ $18 + 2 = 20$ $20 \times 2 = 40$
Q14	(a)	$38 \times 2.10 = 79.80$ $126 - 79.80 = 46.20$ $46.20 \div 2.10 = 22$
	(b)	$22 \div 3 = 7R1$ $7 \times 5.50 = 38.50$ $38.50 + 2.10 = 40.60$
Q15		$\angle AFG = 180 - 40 = 140$ $\angle PFE = 180 - 54 - 54 = 72$ $\angle AFD = 360 - 140 - 43 - 72 = 105$ $\angle BFA = 105 \div 3 = 35$ $\angle FAB = 180 - 35 = 145$ $\times 2$ $\angle FAB = 145 \div 2 = 72.5$
Q16		$3\frac{2}{7} \times 90 = 345$ $345 \times 40\% = 138$ $138 \div 92 = 1.5$ $100 - 40 - 30 = 30$ $3\frac{5}{7} - 1\frac{1}{2} - \frac{30}{10} = 1\frac{1}{2}$ $345 \times 30\% = 103.5$ $103.5 \div 1\frac{1}{2} = 69$
Q17		$40 \div 1.60 = 25$ $18.4 - 4.8 = 13.6$ $25 + 4.8 - 1.4 = 28.4$ $28.4 + 13.6 = 42$ $42 \div 0.4 = 105$
Q18	(a)	$22 - 4 = 18$ $18 \times 28 \times 0.5 = 252$ $252 + 4 \times 28 = 364$
	(b)	$30 - 20 = 10$ $10 \times 28 \times 0.5 = 140$ A : D(new) $364 : 140$ $13 : 5$