SINGAPORE CHINESE GIRLS' SCHOOL

FIRST SEMESTRAL ASSESSMENT 2017

PRIMARY 6

MATHEMATICS
PAPER 1

BOOKLET A

Name : (  )

Class : Primary 6 SY

| | | 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)**

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1. Round off $45\bar{9}\,490$ to the nearest thousands.

   (1) 450 000

   (2) 459 000

   (3) 459 500

   (4) 460 000

2. Which of the following fraction is closest to 3?

   (1) $2\frac{1}{2}$

   (2) $2\frac{1}{5}$

   (3) $3\frac{1}{4}$

   (4) $3\frac{1}{5}$

3. What is the missing number?

   6 : 10 = _____ : 15

   (1) 3

   (2) 9

   (3) 11

   (4) 15

4. Express $2\frac{3}{8}$ as a decimal.

(1) 2.125

(2) 2.3

(3) 2.375

(4) 2.38

5. Simplify $13a + 10 + 2a - 4$.

(1) $15a + 6$

(2) $15a - 14$

(3) $11a + 6$

(4) $11a - 14$

6. Find the average of the following numbers:

12, 15, 18, 3

(1) 12

(2) 15

(3) 16

(4) 48

7. Ahmad had \$3w. He spent \$15 on a book and donated half of the remainder. How much did he donate?

(1) $\$(3w - 15)$

(2) $\$(3w - 7.50)$

(3) $\$(\frac{3w}{2} - 15)$

(4) $\$(\frac{3w - 15}{2})$

8. At a carnival, 40% of the people were adults. There were 240 children. How many people were at the carnival?

(1) 400

(2) 480

(3) 600

(4) 1200

9. $\frac{3}{8}$ of the cost of a wallet is the same as $\frac{7}{16}$ of the cost of a bag. What is the ratio of the cost of the wallet to the cost of the bag?

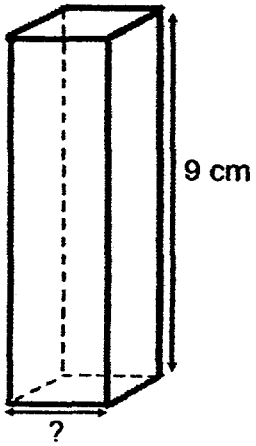
(1) 1 : 2

(2) 3 : 7

(3) 6 : 7

(4) 7 : 6

10. The figure shows a cuboid with a square base. The volume of the cuboid is 144 $cm^3$. What is the length of the base?




(1) 16 cm

(2) 12 cm

(3) 8 cm

(4) 4 cm

11. Elizabeth has $\frac{5}{13}$ as many stamps as Daisy. When Daisy gave 104 stamps to Elizabeth, both of them had the same number of stamps. How many stamps did Elizabeth have at first?

(1) 40

(2) 65

(3) 130

(4) 234

12. Aishah had 6 kg of flour. She used $\frac{1}{3}$ of it to bake a cake and $\frac{1}{2}$ kg to bake some cookies. How much flour does she have left?

(1) 1 kg

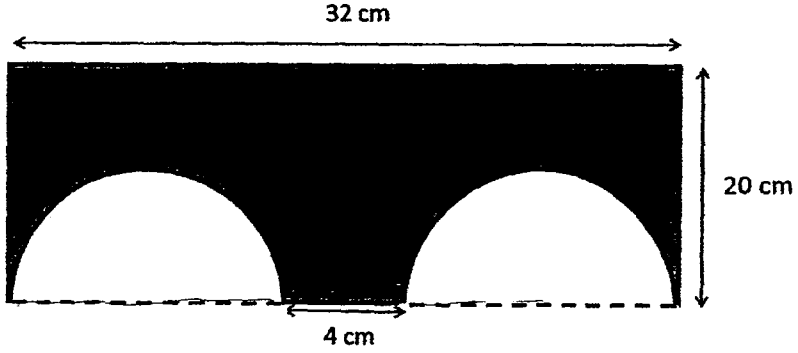
(2) 2 kg

(3) $3\frac{1}{2}$ kg

(4) $5\frac{1}{6}$ kg

13. The figure below not drawn to scale shows a rectangular piece of paper with two cut out identical semicircles. Calculate the area of the shaded part.

(Take $\pi = \frac{22}{7}$)



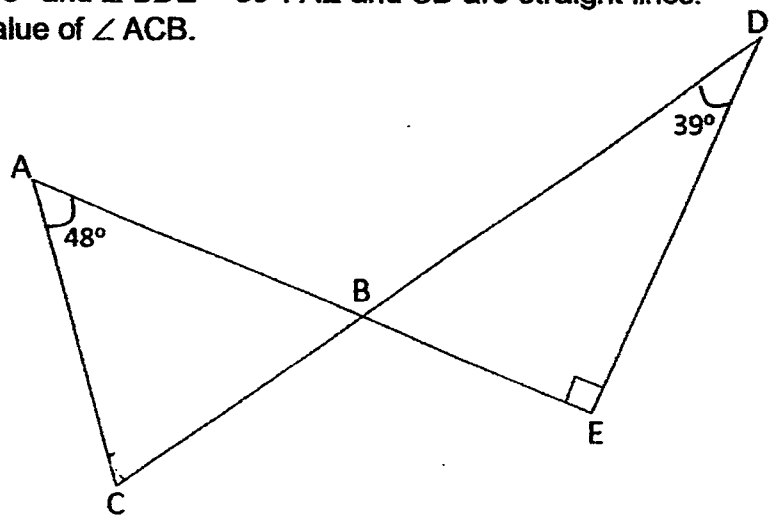

(1) 120 $cm^2$

(2) 332 $cm^2$

(3) 486 $cm^2$

(4) 596 $cm^2$

14. In the figure below, not drawn to scale, there are two triangles ABC and DBE. $\angle CAB = 48°$ and $\angle BDE = 39°$. AE and CD are straight lines. Find the value of $\angle ACB$.



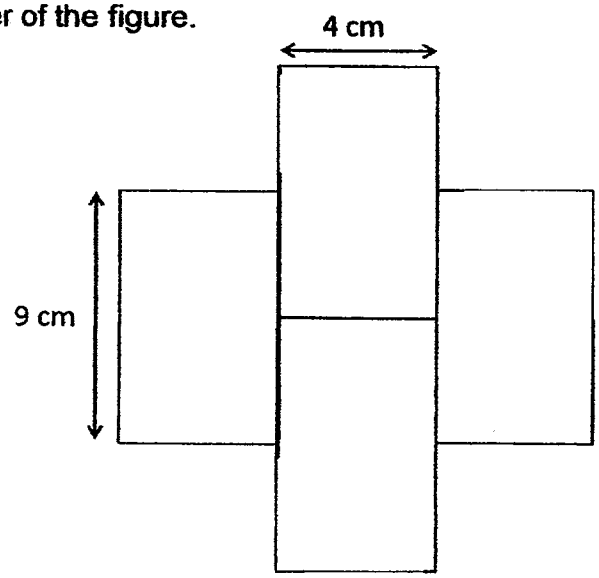

(1) 39°

(2) 51°

(3) 66°

(4) 81°

15. The figure below, not drawn to scale, is made up of 4 identical rectangles. Find the perimeter of the figure.




(1)

(2)

(3)

(4)

End of Booklet A

**SINGAPORE CHINESE GIRLS' SCHOOL**

**FIRST SEMESTRAL ASSESSMENT 2017**

**PRIMARY 6**

**MATHEMATICS**
**PAPER 1**

**BOOKLET B**

**Name :** _____ **(  )**

**Class : Primary 6 SY**

| Paper 1 | Mark attained | Max Mark |
|---|---|---|
| **Booklet B** | | **20** |

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**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**

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 column

16. Find the value of $\frac{2}{9} \div \frac{5}{12}$

Ans: _____

17. What is the missing number in the box?

$15 \times 4 + 8 \times 15 = \square \times 15$

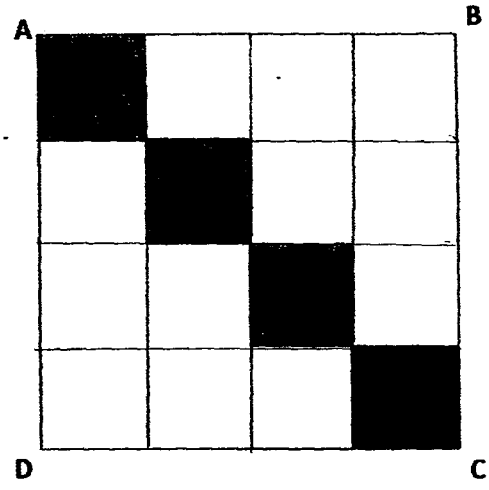
Ans: _____

18. Express $\frac{3}{7}$ as a decimal. Leave your answer to the nearest 2 decimal places.

Ans: _____

3

19. In the figure below, ABCD is a square. The shaded part is made up of 4 identical squares. What percentage of ABCD is shaded?




Ans: _____ %

Do not write in this column

20. The table shows the number of audience for a musical each night.
Find the percentage decrease in number of audience on Sunday.

| | |
|---|---|
| Saturday | 125 |
| Sunday | 100 |

Ans: _____ %

21. Marina paid $1680 for a laptop after she was given a discount of 20%.
What was the price of the laptop before the discount?

Ans: $ _____

3

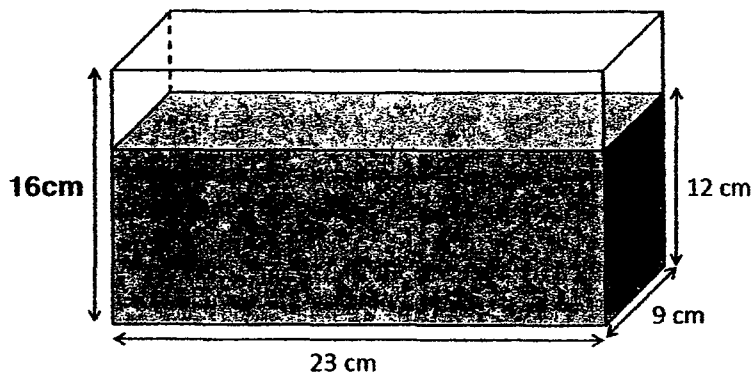
22. The ratio of the number of stamps Peter collected to the number of stamps Siva collected is 4: 5. After Peter gave away 12 stamps, the ratio became 8:15. How many stamps did Peter have at first?

Do not write in this column

Ans: _____

23. What fraction of the container is filled with water?

Give your answer in the simplest form.




Ans: _____

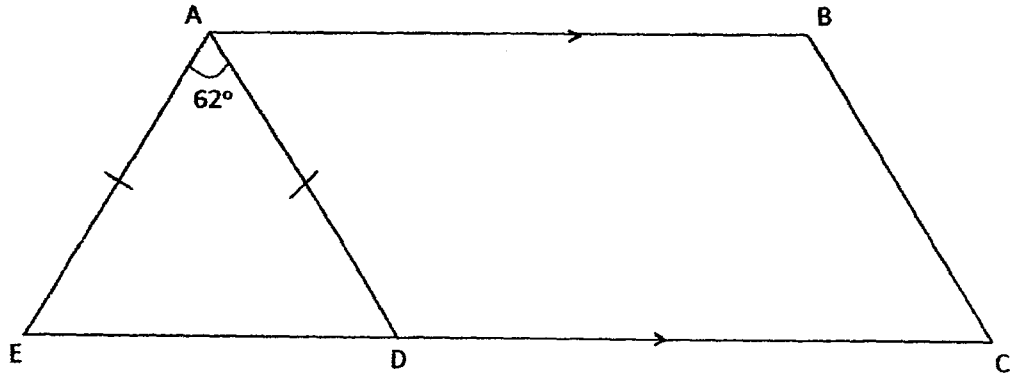
2

24. At a game stall, 2 points are awarded for every blue token collected and 5 points are awarded for every red token collected. Melvin collected an equal number of blue and red tokens. He won a total of 560 points. How many blue tokens did he collect?

Do not write in this column

Ans: _____

25. In the figure below, ABCD is a parallelogram. AB and EC are straight lines. Find $\angle$ DAB.




Ans: _____ °

2

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.

(10 marks)

Do not write in this column

26. Cherries were sold at \$0.50 per 100 g. How much does Mr Lim have to pay if he bought 2.5 kg of cherries?

Ans: \$ _____

27. The table shows the prices of a muffin and a cup of ice tea sold at a café.

| Item | Price |
|---|---|
| Muffin | \$ $(r + 2)$ |
| Ice Tea | \$ $r$ |

Ramesh went to the café to buy a cup of ice tea and a muffin. If $r = 3$, how much does he need to pay altogether?

Ans: \$_____

4

28. A bus can only carry either 20 adults or 45 children. If there are already 8 adults and 11 children, how many more children can the bus carry?

Do not write in this column

Ans: _____

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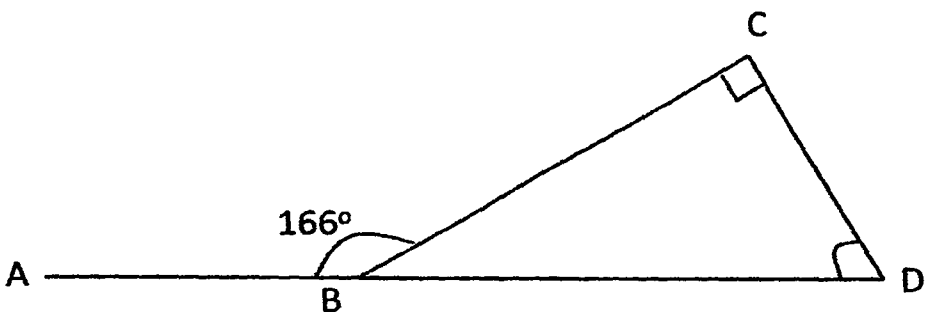
29. In the figure below, ABD is a straight line. Find ∠BDC.




Ans: _____ °

4

30. The average of nine numbers is 6. Two numbers are removed. The average of the remaining seven numbers is also 6. The bigger of the 2 numbers removed is three times the smaller number. What is the smaller number?

Do not write in this column

Ans: _____

End of Booklet B

2

**SINGAPORE CHINESE GIRLS' SCHOOL**

**FIRST SEMESTRAL ASSESSMENT 2017**

**PRIMARY 6**

**MATHEMATICS**

**PAPER 2**

**Name :** _____ **(  )**

**Class : Primary 6 SY**

| | Mark | Max Mark |
|---|---|---|
| **Paper 2** | | **60** |

| Parent's Signature |
|---|
| |

**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. Alvin and Daniel spent $250 altogether. Benjamin and Daniel spent $130 altogether. Given that Alvin spent four times as much money as Benjamin, how much did Daniel spend?

Ans: $_____

2. In Primary 6A, when 5 girls and 3 boys were absent, there were 32 pupils in the class. What percentage of the class was present?

Ans: _____ %

4

Do not write in this column

3. John aims to do the same number of questions for a week from Monday to Sunday. If he decides to take a break on Friday, he will have to do an additional 3 questions each day. How many questions does he have to do altogether?

Ans: _____

4. The price of an admission ticket for a movie is $2y. Children below the age of 10 will be given a 50% discount. Siva brought his wife, two parents and two children of ages 8 and 15 to watch a movie. How much did he have to pay altogether? Leave your answer in terms of y.

Ans: $_____

4

5. Construct an isosceles triangle ABC where AC = 5 cm and $\angle BAC = \angle BCA = 55^{\circ}$.

Do not write in this column

/2

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.

(50 marks)

Do not write in this column

6. Farmer Tan harvested some apples, pears and oranges for sale at the market. $\frac{1}{10}$ of the fruits were apples. The number of pears was twice the number of oranges. There were 85 more pears than apples. How many fruits were there altogether?

Ans: _____ [3]

7. Beatrice spent $800 of her monthly salary and saved the rest. In March, she increased her spending by 40% and her savings decreased by 25%. How much is her monthly salary?

Ans : _____ [4]

7

8. A tank was 40% filled with water. Another 24 $\ell$ of water was needed to fill the tank to its brim. The length and breadth of the tank were 50 cm and 40 cm respectively. Find the height of the tank.

Do not write in this column

Ans : _____ [3]

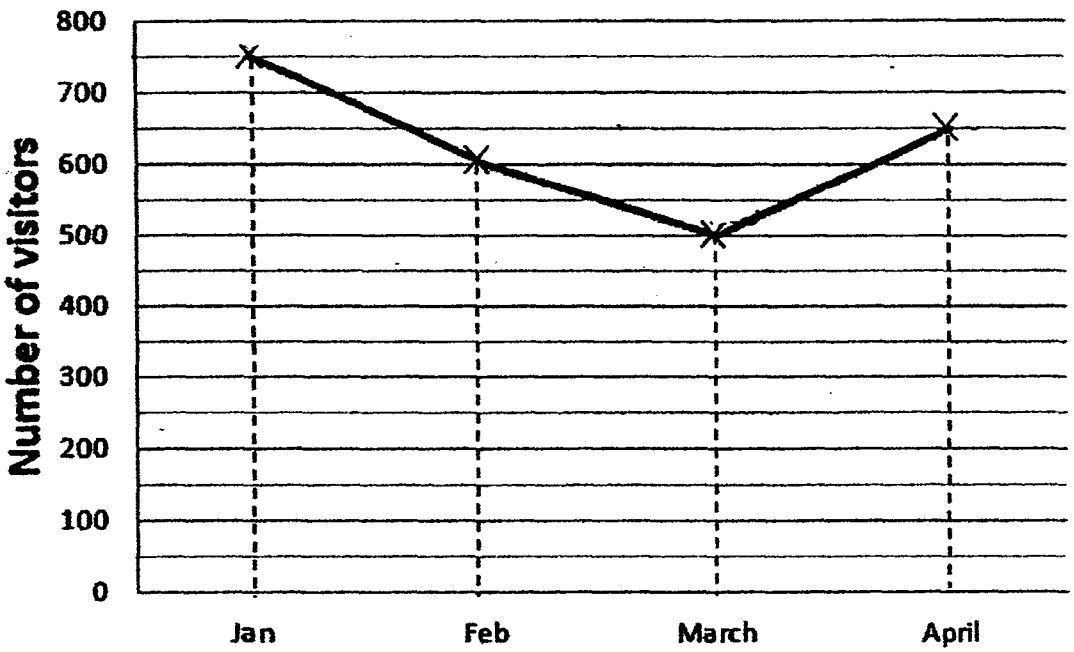
9. Mr Teh recorded the earnings by every stall during a school carnival. He wrongly recorded one of the stall's earnings as $370 instead of $220. As a result, the average earnings was recorded as $329 instead of $324. How many stalls were there at the carnival?

Ans: _____. [3]

6

10. The graph shows the number of visitors to the aquarium in the first 4 months of the year.

Do not write in this column




The aquarium was closed in May for renovation works. It reopened in June and the number of visitors was 60% more than the number of visitors in March. Find the average number of visitors per month from January to June.

Ans : _____ [3]

3

11. Allan, Bernice, Candice and Derrick shared the cost of a present. The amount Allan paid is $\frac{1}{14}$ of the total amount Bernice and Candice paid. The amount Bernice paid is $\frac{1}{4}$ of the total amount Candice and Derrick paid. The amount Derrick paid is twice the amount Candice paid. Given that Candice paid $63 more than Allan, how much was the cost of the present?

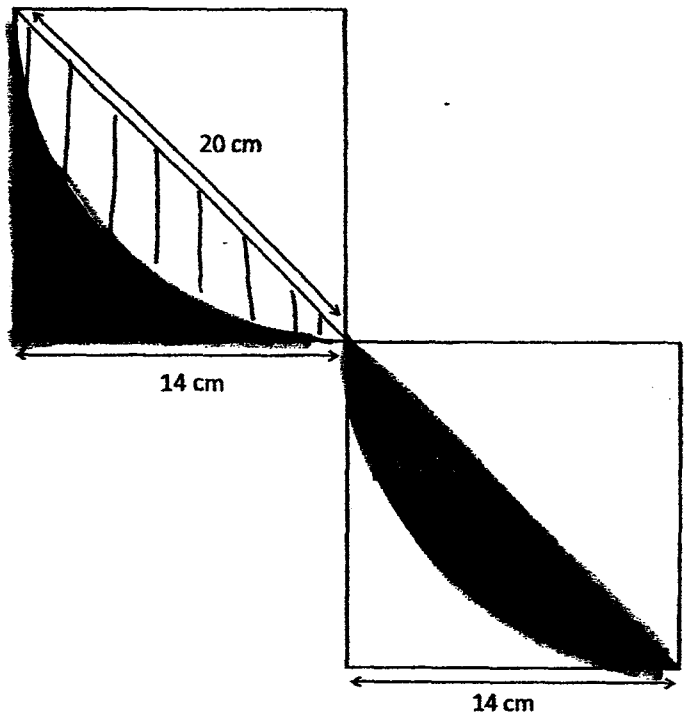
Do not write in this column

Ans : _____ [4]

4

12. The diagram below, not drawn to scale, shows 2 squares and 2 quadrants. Find the perimeter of the shaded figure.

(Take $\pi = \frac{22}{7}$)




Do not write in this column

Ans: _____ [3]

3

13. Mrs Tan bought a 10-kg bag of rice. The family consumed $\frac{3}{5}$ kg of rice daily.

Do not write in this column

(a) How many days can they have $\frac{3}{5}$ kg of rice daily?

(b) How much rice was there left?

Ans: (a) _____ [2]

(b) _____ [2]

4

14. Simone prepared blue and red balloons for a party. The ratio of the number of blue to red balloons is 4 : 1 After 25% of the blue balloons and 40% of the red balloons burst, Simone had a total of 54 balloons left. How many balloons burst?

Do not write in this column

Ans : _____ . [4]

4

Do not write in this column

15. Some passengers boarded an empty train at Station A. At Station B, $\frac{1}{3}$ of them got off and 60 passengers boarded the train. At Station C, 220 passengers got off and 60 boarded the train. The train now had $\frac{5}{9}$ of the number of passengers when it left Station B.

a) How many passengers were on the train when it left Station C?

b) How many passengers were on the train when it left Station A?

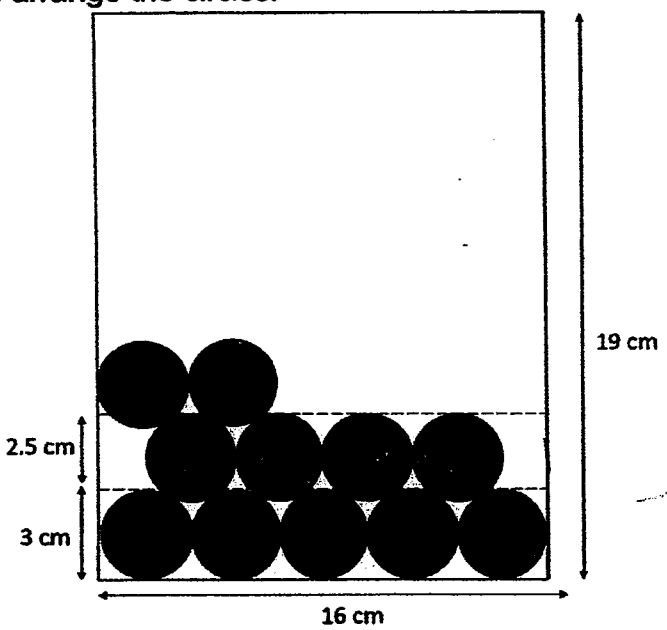
Ans: (a) _____ [2]

Ans: (b) _____ [3]

5

Do not write in this column

16. In an arcade game, John had to fit as many circular discs as possible onto a rectangular mat measuring 16 cm by 19 cm. The diagram below shows how he chose to arrange the circles.




(a) Given that he continues to arrange the circular discs in this manner, how many similar discs can he fit onto the mat?

(b) What is the area left on the mat after all the possible circular discs have filled the mat? (Take $\pi = 3.14$)

Ans: (a) _____ [2]

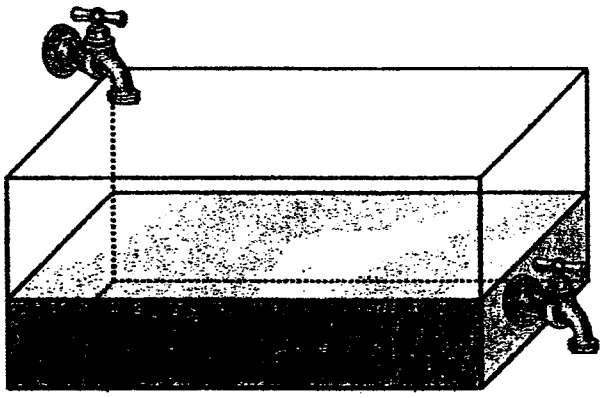
(b) _____ [3]

5

17. An empty rectangular tank of capacity 25600 $cm^3$ has 2 taps. Water from tap A starts to fill the tank at a rate of 2 ℓ per minute. After 8 minutes, both taps are turned on to fill the tank to the brim. Tap B allows water to flow out from the base of the tank at 0.4 ℓ per minute. Find the total amount of time taken from the start to fill the tank to the brim.

Do not write in this column

(1 ℓ = 1000 $cm^3$)



Ans: _____ [5]

5

18. A group of students were at a birthday party. Each person shook hands once with everyone else. Ben shook hands with five times as many boys as girls. Justina shook hands with seven times as many boys as girls. How many children were there at the birthday party?

Do not write in this column

Ans: _____ [4]

4

End of Paper 2

EXAM PAPER 2017

LEVEL : PRIMARY 6

SCHOOL : SINGAPORE CHINESE GIRLS' PRIMARY SCHOOL

SUBJECT : MATHEMATICS (PAPER 1)

TERM : SA1

**PAPER 1**

**SECTION A**

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

**SECTION B**

Q16. $\frac{2}{9} \div \frac{5}{12} = \frac{2}{9} \times \frac{12}{5} = \frac{8}{15}$

Q17. 15 X 4 + 8 X 15 = _____ X 15

| 4 sets X 15 | 8 sets X 15 |
|---|---|

Ans : 4 + 8 = 12

Q18. $\frac{3}{7} = 3 \div 7 = 0.428$

Ans: 0.43

Q19. 4 X 4 = 16

$\frac{4}{16} = \frac{1}{4} = 25$

Ans: 25%

Q20. $\frac{25}{125} \times 100\% = 20\%$

Ans: 20%

Q21. 80% - $1680

10% - $1680 ÷ 8 = $210

100% - $210 X 10 = $2100

Ans : $2100

Q22. P : S P : S

4 : 5 8 : 15

12 : 15

12 – 8 = 4

4U – 12

1U – 12 ÷ 4 = 3

12U – 3 X 16 = 36

Ans : 36 stamps

Q23. Capacity of container ⟶ 16 X 23 X 9 = 3092

Volume of water ⟶ 12 X 23 X 9 = 2824

Fraction ⟶ $\frac{2824}{3092} = \frac{3}{4}$

Ans: $\frac{3}{4}$

Q24. 2 + 5 =7

560 ÷ 7 = 80

Ans : 80

Q25. $(180^0 - 62^0) \div 2 = 59^0$

$180^0 - 59^0 = 121^0$

$121^0 - 62^0 = 59^0$

Ans : $59^0$

Q26. 2.5 X 1000 = 2500

2500 ÷ 100 = 25

25 x 0.50 = 12.50

Ans: $12.50

Q27. Muffin – 3 + 2 = 5

5 + 3 = 8

Ans: $8

Q28. A : C

20 : 45

4 : 9

8 : 18

45 – 18 -11 = 16

Ans : 16 children

Q29. $180^0 - 166^0 = 14^0$

$90^0 + 14^0 = 104^0$

$180^0 - 104^0 = 76^0$

Ans: $76^0$

Q30. B : S : T

3 : 1 : 4

6 X 9 = 54

6 x 7 = 42

54 – 42 = 12

4U – 12

1U – 12 ÷ 4 = 3

Ans : 3

**PAPER 2**

Q1. 3U ——— 250 – 130 = 120

1U ——— 120 ÷ 3 = 40

130 – 40 = 90

Ans: $90

Q2. 32 + 5 + 3 = 40

$\frac{32}{40}$ X 100% = 80

Ans: 80%

Q3.

| Mon | Tue | Wed | Thur | Sat | Sun |
|---|---|---|---|---|---|
| +3 | +3 | +3 | +3 | +3 | +3 |

Per day – 3 X 6 = 18

Altogether – 18 X 6 = 108

108 + 18 = 126

Ans : 126 questions

Q4. 1 ticket = 2y

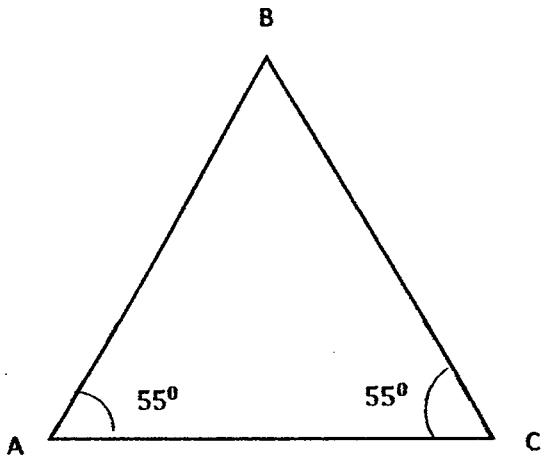
5A = 2y X 5 = 10y

C = $\frac{2y}{2}$ = y

Total = 10y + y = 11y

Ans: $11y

Q5.




Q6. 6 – 1 = 5

5U ~ 85

1U ~ 85 ÷ 5 = 17

10U ~ 17 X 10 = 170

Ans : 170 fruits

Q7. 40% spent - $\frac{40}{100}$ X 800 = 320

25% saving – 320

100% ~ 320 X 40 = 1280

1280 + 800 = Ans: $2080

Q8. 60% ~ 24L

10% ~ 24 ÷ 60 = 4

100% ~ 4 X 10 = 40

40 X 1000 = 40000

40000 ÷ 50 ÷ 40 = 20

Ans : 20cm

Q9. 370 – 220 = 150

329 – 324 = 5

150 ÷ 5 = 30

Ans : 30 stalls

Q10. $\frac{160}{100}$ X 500 = 800

0 + 750 + 600 + 650 + 650 +800 = 3300

3300 ÷ 6 = 550

Ans: 550 visitors

Q11.

| A | : | B | : | C | : | D | : | T |
|---|---|---|---|---|---|---|---|---|
| 1 | : | 6 | : | 8 | : | 16 | : | 31 |

8 – 1 = 7

7U ~ 63

1U ~ 63 ÷ 7 = 9

31U ~ 9 X 31 = 279

Ans : $279

Q12. $\frac{1}{2}$ X π X d = $\frac{1}{2}$ X $\frac{22}{7}$ X 28 = 44

44 + 20 + 14 + 14 = 92

Ans: 92cm

Q13. a) $10 \div \frac{3}{5} = 16.67$

$\approx 16$

Ans: 16 days

b) Left ~ $\frac{2}{3}$ X $\frac{3}{5}$ = $\frac{2}{5}$

Ans: $\frac{2}{5}$kg

14. $20 - 5 = 15$

$5 - 2 = 3$

$15 + 3 = 18$

$18U \sim 54$

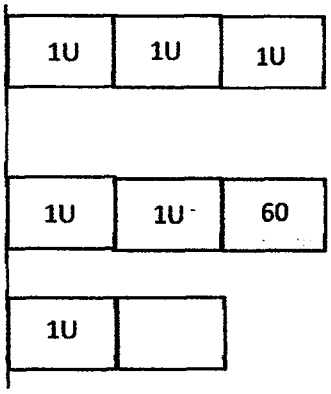
$1U \sim 54 \div 18 = 3$

$5 + 2 = 7$

$7U \sim 3 \times 7 = 21$

Ans : 21 balloons.

Q15. a) When the train left the station A




When the train left the station B

When the train left the station C

$2U + 60 = 9p$

$10U + 300 = 45P$

$2U - 100 = 5P$

$18U - 900 = 45p$

$10U + 300 = 18U - 900$

$18U - 10U = 900 + 300$

$8U = 1200$

$1U = 1200 \div 8 = 150$

Number of passengers after station C ~ $2U - 100$

$= (2 \times 150) - 100 = 200$

Ans : 200 passengers

b) number of passengers after station A ~ $3U$

$= 3 \times 150 = 450$

Ans : 450 passengers

Q16. a) $19 - 3 = 16$

$16 \div 2.5 = 6.4 \approx 6$

Number of discs ~ (3 X 5) + (3 X 4) + 5

$= 15 + 12 + 5 = 32$

b) area of 1 circle ~ 3.14 X 1.5 X.5 = 7.065

7.065 X 32 = 236.08

16 X 19 = 304

304 – 226.08 = 77.92

Ans : $77.92cm^2$

Q17. $2L = 2000cm^2$

2000 X 8 = 16000

$0.4L = 400cm^2$

25600 – 16000 = 9600

2000 – 400 = 1600

9600 ÷ 1600 = 6

6 + 8 = 14

Ans : 14mins

Q18.

| Ben | Justina |
|---|---|
| B : G : T | B : G : T |
| 5 : 1 : 6 | 7 : 1 : 8 |
| 20 : 4 : 24 | 21 : 3 : 24 |

21 + 4 = 25

24 + 1 = 25

Ans : 25 children

END.