Index No. [ ]

PEI CHUN PUBLIC SCHOOL

PRELIMINARY EXAMINATION, 2016

MATHEMATICS

PAPER 1

(BOOKLET A)

Additional materials: Optical Answer Sheet (OAS) **Total Time For Booklets A & B : 50 min**

Name : _____ ( )

Class : Primary ( )

Date : 3 August 2016

INSTRUCTIONS TO CANDIDATES

DO NOT OPEN THIS BOOKLET UNTIL YOU ARE TOLD TO DO SO.

FOLLOW ALL INSTRUCTIONS CAREFULLY.

ANSWER ALL THE QUESTIONS.

SHADE YOUR ANSWERS IN THE OPTICAL ANSWER SHEET (OAS) PROVIDED.

YOU ARE NOT ALLOWED TO USE A CALCULATOR.

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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. **What is the value of the digit 6 in 756 042?**

   (1) 6

   (2) 60

   (3) 600

   (4) 6000

2. What is the value of 500 ÷ 1000?

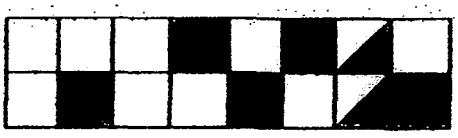
   (1) 0.2

   (2) 2

   (3) 0.5

   (4) 0.05

3. The figure below is made up of unit squares.



   What fraction of the figure is shaded?

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

   (2) $\frac{5}{8}$

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

   (4) $\frac{7}{16}$

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4. Which of the following fractions is closest to $\frac{1}{2}$?

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

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

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

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

5. 4 ones, 8 tenths and 6 thousandths is _____.

(1) 0.486

(2) 4.086

(3) 4.806

(4) 4.86

6. Round off 3.465 to 2 decimal places.

(1) 3.50

(2) 3.47

(3) 3.46

(4) 3.40

7. 6090 m is the same as _____.

(1) 6 km 9 m

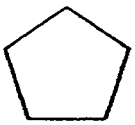
(2) 6 km 90 m

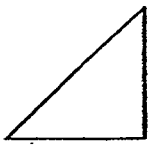
(3) 60 km 9 m

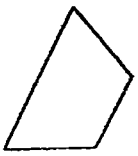
(4) 60 km 90 m

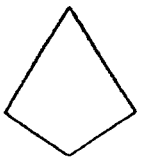
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8. Which of the following figures has a pair of parallel lines?

(1) 

(2) 

(3) 

(4) 

9. There are 40 pupils in a class. 30% of them are boys. How many girls are there in the class?

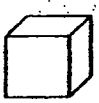
(1) 10

(2) 12

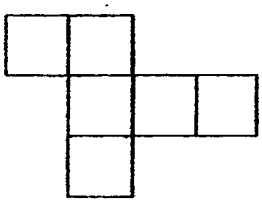
(3) 18

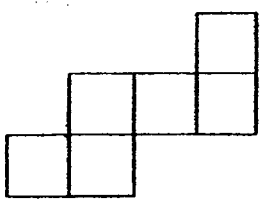
(4) 28

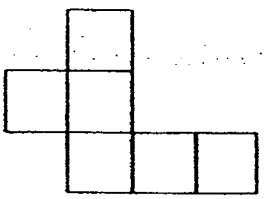
10. The figure below shows a cube.

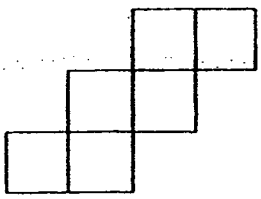


Which of the following is **not** a net of the cube?

(1) 

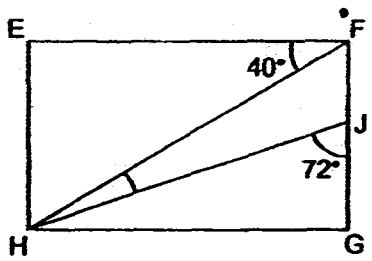
(2) 

(3) 

(4) 

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11. In the figure below, EFGH is a rectangle.



Find ∠FHJ.

(1) 18°

(2) 22°

(3) 27°

(4) 40°

12. Jamie used four letters A, B, C and D to form a pattern. The first 20 letters are shown below.

A B C D C B A B C D C B A B C D C B A B . . . . . ?
1st 20th 292th

Which letter is in the 292th position?

(1) A

(2) B

(3) C

(4) D

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13. The table below shows the scores of Mike and Norman for three quizzes.

	Mike	Norman
Quiz 1	80	70
Quiz 2	80	90
Quiz 3	?	80

Norman's average score for the three quizzes was 5 more than Mike's average score for the three quizzes. What was Mike's score for Quiz 3?

(1) 65

(2) 75

(3) 85

(4) 95

14. Jill is $4y$ years old. Mr Lam is now 5 times as old as Jill. How many years old will Mr Lam be when Jill is 30 years old?

(1) $30 + 16y$

(2) $30 - 16y$

(3) $30 + 20y$

(4) $30 + 9y$

15. Mr Lim bought an equal number of red apples and green apples. He put all the apples in 2 empty boxes, Box A and Box B.
The number of red apples in Box A to the number of red apples in Box B was in the ratio 3 : 1. The ratio of the number of green apples in Box A to the number of green apples in Box B was 1 : 5. The total number of apples in Box A was the same as that in Box B.

What was the ratio of the number of red apples to the number of green apples in Box B?

(1) 1 : 5

(2) 2 : 5

(3) 3 : 10

(4) 6 : 1

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PEI CHUN PUBLIC SCHOOL

PRELIMINARY EXAMINATION, 2016

MATHEMATICS

PAPER 1

(BOOKLET B)

Total Time For Booklets A & B : 50 min

Name : _____ ( )

Class : Primary 6

Date : 3 August 2016

/ 20

INSTRUCTIONS TO CANDIDATES

DO NOT OPEN THIS BOOKLET UNTIL YOU ARE TOLD TO DO SO.

FOLLOW ALL INSTRUCTIONS CAREFULLY.

ANSWER ALL QUESTIONS.

SHOW YOUR WORKING CLEARLY AS MARKS ARE AWARDED FOR CORRECT WORKING.

WRITE YOUR ANSWERS IN THIS BOOKLET.

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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. Use all the digits 3, 5, 4, and 8 to form the largest four-digit even number.

Answer: _____

17. Find the value of $7 \times 2 - (8 + 4) \div 3$.

Answer: _____

18. Find the value of $\frac{3}{8} \div \frac{5}{6}$.

Answer: _____

19. I am an odd number greater than 3. I am a multiple of 3 and a factor of 36. What am I?

Answer: _____

SCORE

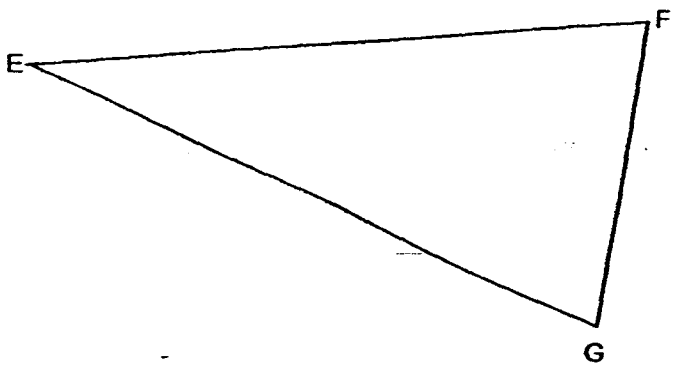
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20. Find the value of 0.29×30.

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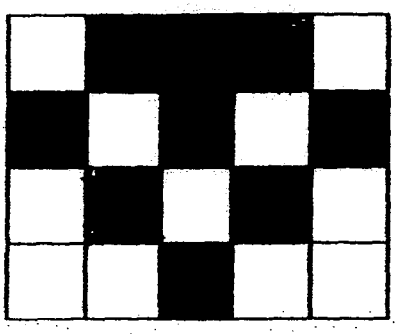
Answer: _____

21. Measure and write down the size of $\angle EFG$.



Answer: _____ °

22. The figure below is made up of squares. Shade **two** more squares so that the figure has exactly a line of symmetry.

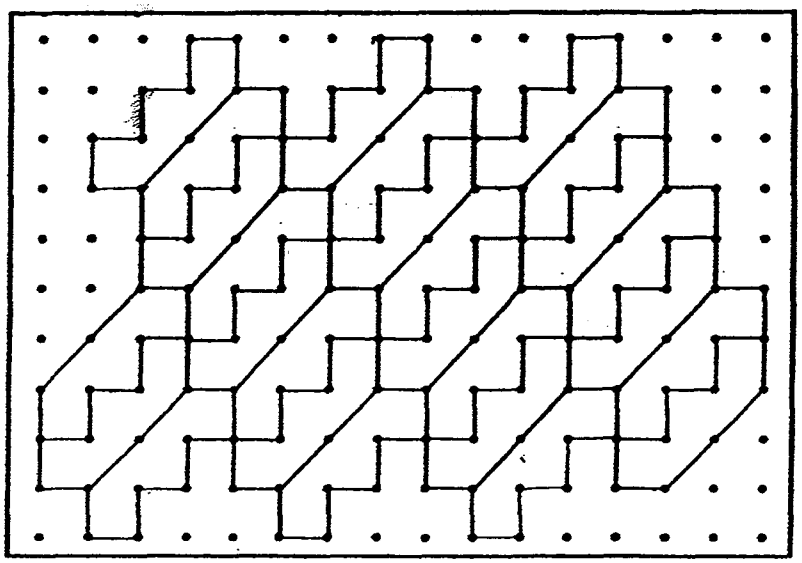


SCORE

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23. The pattern in the box below shows part of a tessellation. Extend the tessellation by drawing two more unit shapes in the space provided in the box.

Do not in this



24. Find the value of $5 + \frac{3b}{2}$ when $b = 6$.

Answer: _____

25. Ali wanted to watch a movie which started at 16 30. He took 30 minutes to travel from his house to the cinema. He arrived at the cinema 10 minutes before the movie started. What time did Ali leave his house?
Give your answer using the 24-hour clock.

Answer: _____

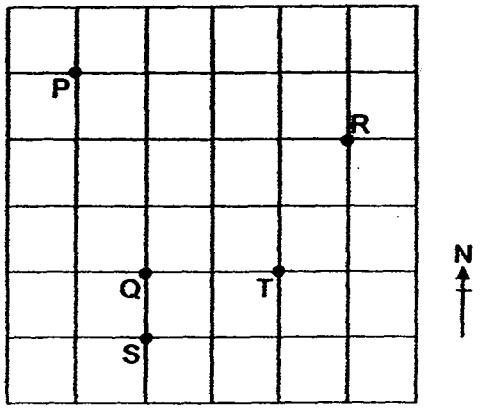
SCORE

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Questions 26 to 30 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. (10 marks)

Do not write in this space

26.

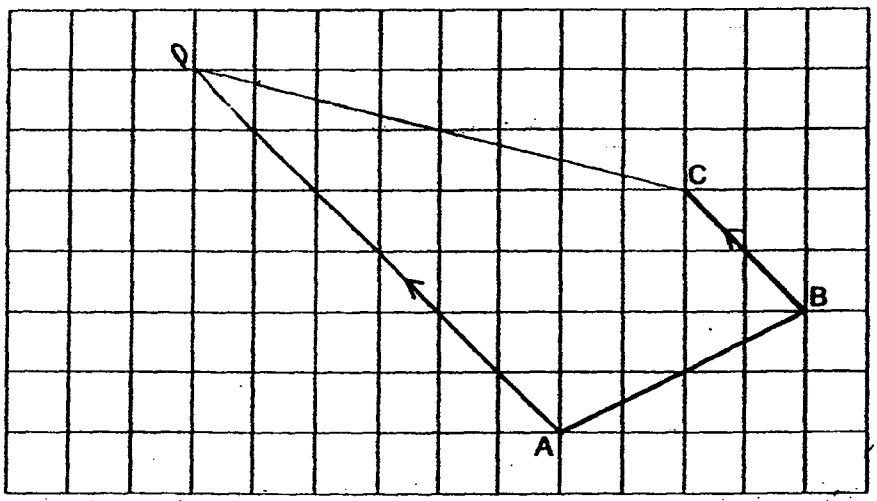


Refer to the square grid above and fill in the blanks with P, Q, R, S or T.

(a) Point _____ is west of point _____

(b) Point _____ is north-east of point _____

27. AB and BC form two sides of a trapezium ABCD. AD is parallel to BC. AD is three times the length of BC. Complete the drawing of the trapezium ABCD.

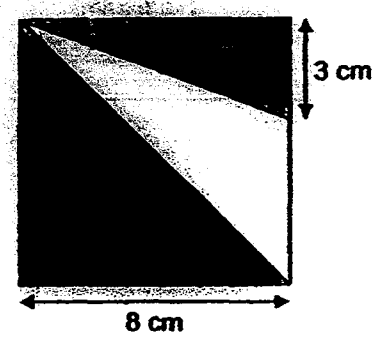


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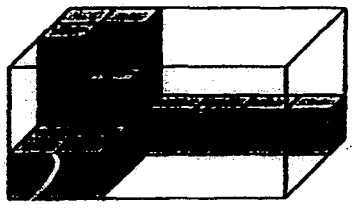
28. Find the total area of the shaded parts of the square shown below.

Do not write in this space



Answer: _____ cm^2

29. The figure shows a rectangular glass box partly filled with unit cubes. How many more cubes have to be put in the box so that it is filled completely?



Answer: _____

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30. The price of one bun from a shop is 80¢. When a customer buys 7 buns, he can buy one more at half the price. What is the greatest number of buns that a customer can buy with $100?

Do not write in this space

Answer: _____

End of Paper

Set by : Mrs Agnes Chua, Mrs Jaslene Tan, Mr Stanley Soh and Mr Teng Beng Chye

SCORE

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PEI CHUN PUBLIC SCHOOL

PRELIMINARY EXAMINATION, 2016

MATHEMATICS

PAPER 2

Time: 1 h 40 min

Name : _____ ( )

Class : Primary 6

Date : 3 August 2016

Parent's Signature: _____

Paper 1 (Booklet A)	/20
Paper 1 (Booklet B)	/20
Paper 2	/60
TOTAL	/100

INSTRUCTIONS TO CANDIDATES

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YOU ARE ALLOWED TO USE A CALCULATOR.

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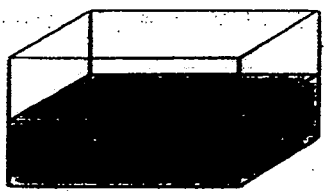
Questions 1 to 5 carry 2 marks each. Show your working clearly and write your answers in the spaces provided. For questions which require units, give your answers in the units stated. (10 marks)

Do not write in this space

1. Sam used all his savings to buy a T-shirt and a wallet. The T-shirt cost $36 and the wallet cost $144. What percentage of his savings was used to buy the T-shirt?

Answer: _____ %

2. The base area of a rectangular tank is 36 m^2 and its capacity is 252 m^3. It is half-filled with water. Find the height of the water level.



Answer: _____ m

SCORE

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3. Mr Ahmad placed 12 potted plants along a straight pathway with the first pot at one end and the last pot at the other end. The potted plants were placed at equal distance of 2.5 m apart. What was the length of the pathway?

Do not write in this space

Answer: _____ m

4. Ted poured out $1\frac{3}{4}$ ℓ of water from a tank and put back another $\frac{2}{5}$ ℓ. After that, there was 6 ℓ of water in the tank. How much water was there in the tank at first?

Answer: _____ ℓ

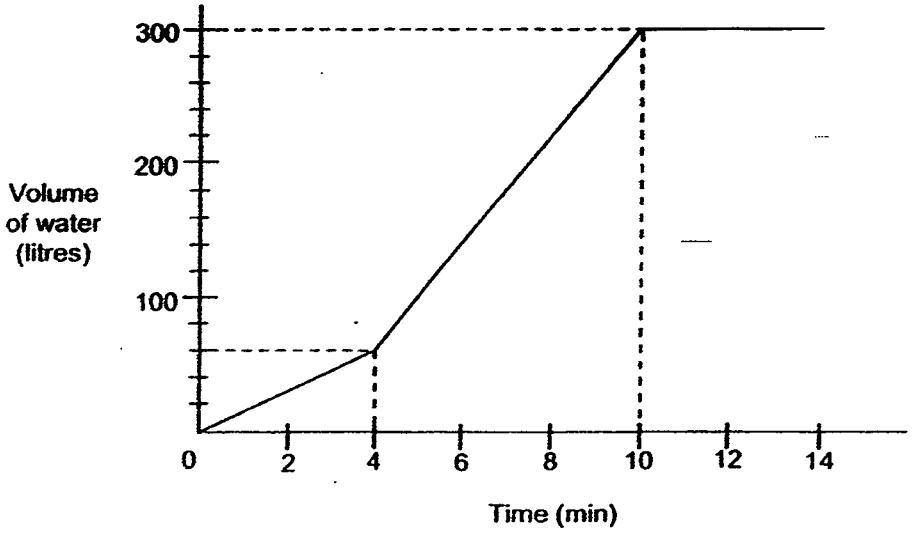
SCORE

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5. Raj filled a tank with water using two taps. He turned on Tap A first and after 4 minutes, he also turned on Tap B. Both taps were turned off at the same time when the tank was completely filled without overflowing.

Do no in this

The graph below shows the amount of water in the tank over 14 minutes.



In one minute, how many litres of water flowed from Tap B?

Answer: _____ ℓ

SCORE

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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. Every day, Ali saves $2 and Siti saves $5. If they start saving on the same day, how many days will it take Siti to save $210 more than Ali?

Answer: _____ [3]

SCORE

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7. A baker baked some cookies on Monday. He sold $\frac{3}{7}$ of them on Tuesday and $\frac{1}{2}$ of the rest on Wednesday.

Do not writ in this spac

(a) What fraction of the cookies were left?

(b) The baker baked another 732 cookies on Thursday and then he had twice as many cookies as he had on Monday. How many cookies did he bake on Monday?

Answer: (a) _____ [1]

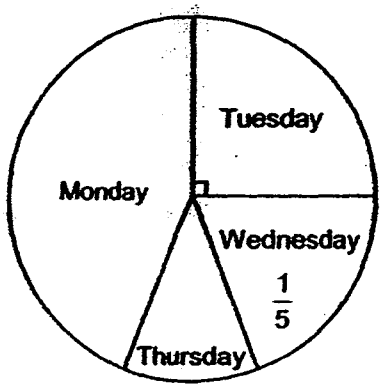
(b) _____ [2]

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8. A school conducted checks on its Primary 1 pupils' eyesight from Monday to Thursday. Each of them had their eyes checked on one of the four days. There were 200 Primary 1 pupils altogether. The pie chart represents the number of pupils that were checked on each day.

Do not write in this space



(a) How many Primary 1 pupils had their eyes checked on Wednesday?

(b) 40% of the Primary 1 pupils had their eyes checked on Monday.
How many Primary 1 pupils had their eyes checked on Thursday?

Answer: (a) _____ [2]

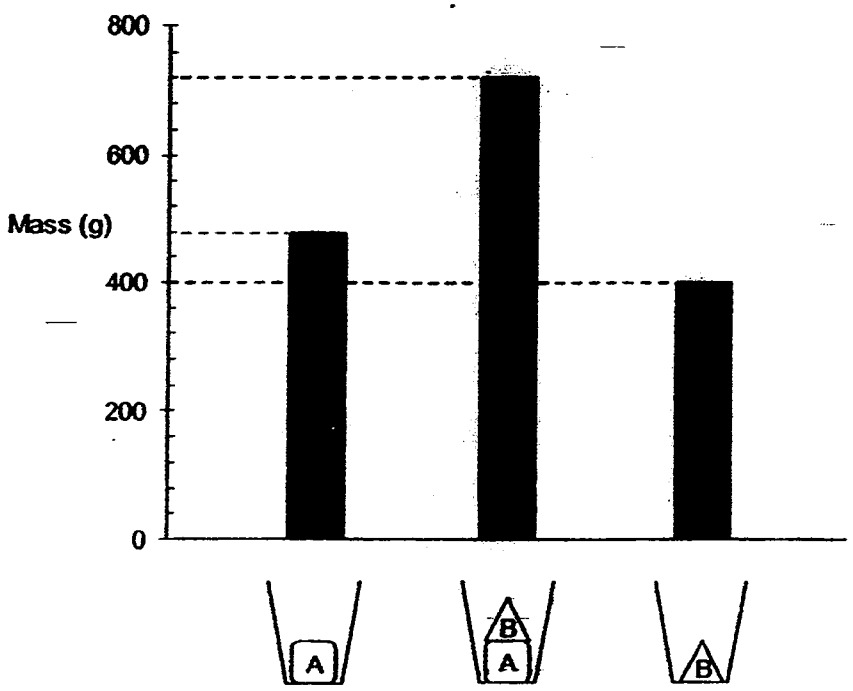
(b) _____ [2]

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9. The graph below shows the mass of a cup when different combinations of objects A and B are placed in the cup.

Do not in this s



What is the mass of the cup when it is empty?

Answer: _____ [3]

SCORE

(Go on to the next page)

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10. Mr Peh mixed 3.75 kg of white rice with 7.5 kg of brown rice. He packed the mixed rice into as many packets of 40 g each as possible.

(a) How many such packets did he get?

(b) What was the mass of the remaining mixed rice?

Do not write in this space

Answer: (a) _____ [3]

(b) _____ [1]

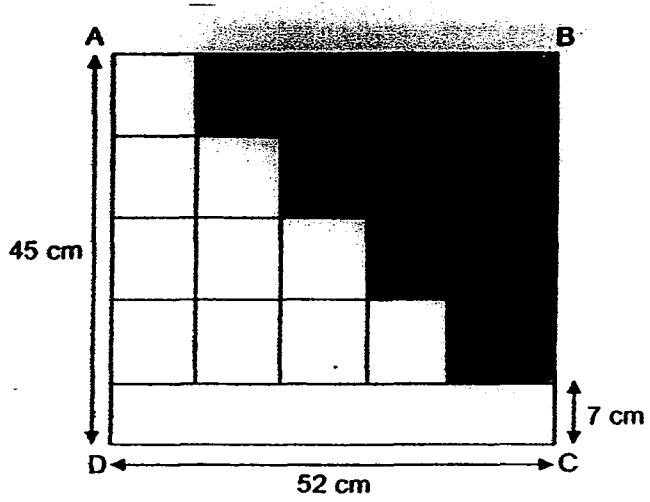
SCORE

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11. There are 10 identical squares and a small rectangle in rectangle ABCD.

(a) What is the perimeter of the shaded part?

(b) What is the area of the shaded part?



Do not writ in this spac

Answer: (a) _____ [3]

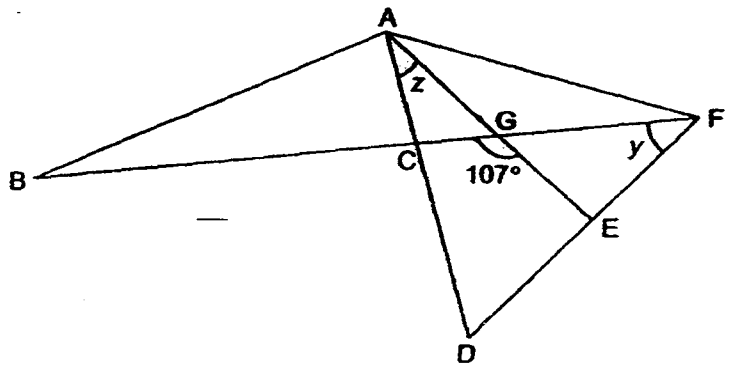
(b) _____ [2]

SCORE

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12. In the figure below, ADF is an equilateral triangle. BCF and AGE are straight lines.

Find the value of $\angle y + \angle z$.



Do not write in this space

Answer: _____ [4]

SCORE

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13. In a game, Rene scored 10 times as many points as Shaun. Shaun scored 10 times as many points as Tom. Shaun scored 65.16 points more than Tom.

(a) How many more points did Rene score than Shaun?

(b) Find the total points scored by Rene, Shaun and Tom.

Do not write in this space

Answer: (a) _____ [2]

(b) _____ [2]

SCORE

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14: Roy and Sid started to jog on an 8-km track at the same time. Roy still had 1.6 km to jog when Sid completed the 8 km. 10 minutes later, Roy completed the 8 km. Their jogging speeds did not change from start to finish.

Do not write in this space

(a) How long did Roy take to complete the track?

(b) What was Sid's jogging speed in km/h?

Answer: (a) _____ [2]

(b) _____ [2]

SCORE

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15. At a cake shop, 2 large muffins were sold at $9 and 7 small muffins at $12. Jim bought some large muffins and Kaiming bought some small muffins from the shop. They spent the same amount of money but Kaiming bought 156 more muffins than Jim. How much money did Jim spend?

Do not write in this space

Answer: [4]

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16. Mr Li had a total of 1051 goats, ducks and chickens on his farm at first. The ratio of the number of chickens to the number of ducks was 5 : 3. After selling $\frac{2}{3}$ of the ducks and $\frac{2}{3}$ of the goats, he had 457 animals left.
How many goats did he have at first?

Do not write in this space

Answer: _____ [4]

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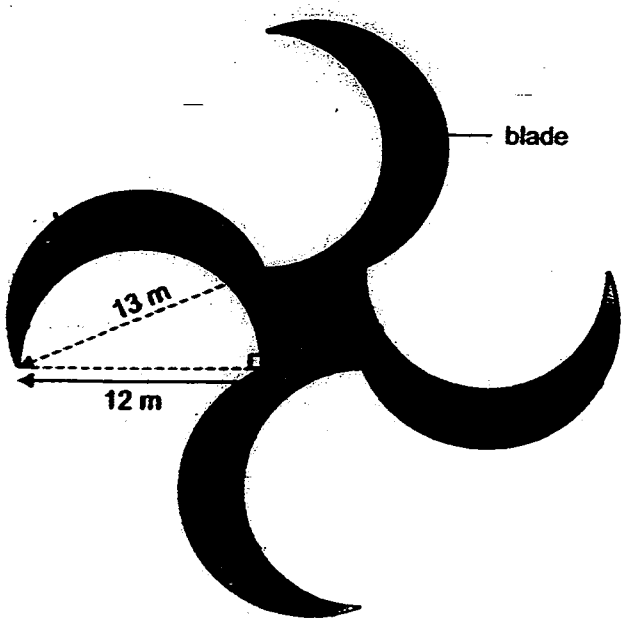
Do not write in this space

17. The figure below is made up of a square and four identical blades.
Each blade is formed by two different semicircles.

(a) What is the perimeter of the figure?

(b) What is the area of one blade?
Correct your answer to 1 decimal place.

(Take $\pi = 3.14$)



Answer: (a) _____ [2]

(b) _____ [2]

SCORE

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18. Each participant paid $25 to attend a workshop. On Saturday, the number of female participants was 130 fewer than the number of male participants. On Sunday, the number of male participants decreased by 20% while the number of female participants increased by 20%. There were 574 participants on Sunday. Find the total amount of money paid by all the participants on both days.

Do not write in this space

Answer: _____ [4]

End of Paper

Set by : Mrs Agnes Chua, Mrs Jaslene Tan, Mr Stanley Soh and Mr Teng Beng Chye

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PRELIMINARY EXAM PAPER 2016

SCHOOL : PEI CHUN PRIMARY SCHOOL
SUBJECT : MATHEMATICS PAPER 1
TERM : PRELIMINARY EXAMINATION 2016

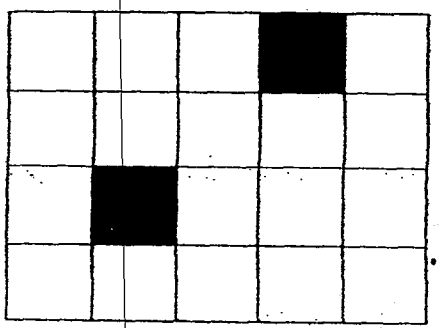
Booklet A

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

Booklet B

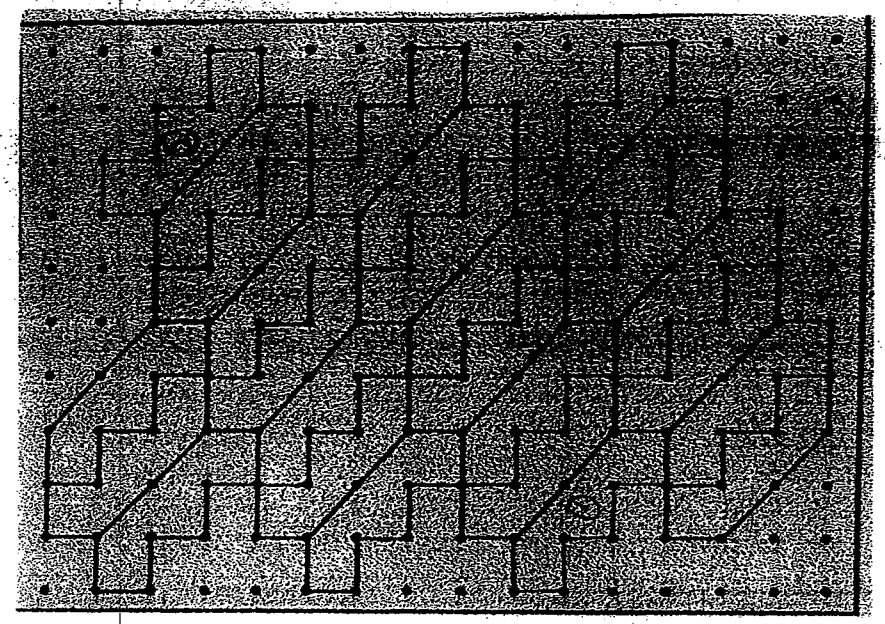
Q16	Q17	Q18	Q19	Q20	Q21
8534	10	9/20	9	8.7	77

Q22.



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Q23.



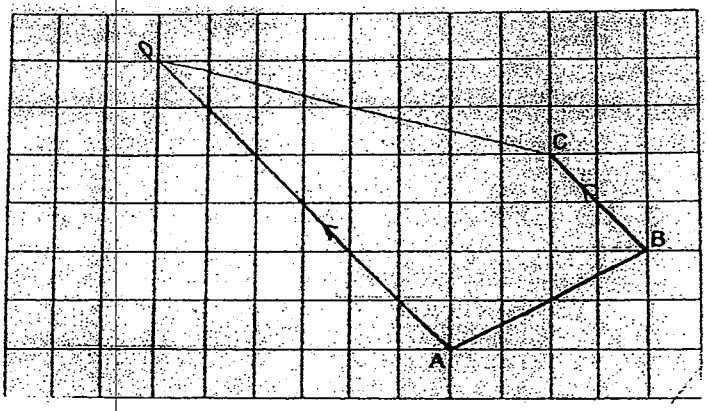
Q24. 14

Q25. 1550

Q26(a) Point Q is west of point T.

(b) Point R is north-east of point S.

Q27.



Q28. $44cm^2$

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Q29. 53 cubes

Q30.

1 Group ⟶ $0.8 \times 7 + 0.4$

$= 5.6 + 0.4 = 6$

Groups ⟶ $100 \div 6 = 16R4$

$4 \div 0.8 = 5$

Buns ⟶ $16 \times 8 + 5$

$= 128 + 5$

$= 133$

Answer: 133 buns

Paper 2 (Workings Including)

Q1. T shirt ⟶ $\frac{36}{144+36} \times 100 = 20$

Answer: 20%

Q2. Height ⟶ $252 \div 36 = 7$

Height of water ⟶ $7 \div 2 = 3.5$

Answer: 3.50m

Q3. Spaces ⟶ $12 - 1 = 11$

Length of pathway ⟶ $11 \times 2.5 = 27.5$

Answer: 27.5m

Q4. At first ⟶ $6 - \frac{2}{5} + 1\frac{3}{4} = 7\frac{7}{20}$

$= 7.35$

Answer: 7.35L

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Q5.

1 min, A ⟶ 60 ÷ 4 = 15

6 min, A ⟶ 15 x 6 =90

B, 6 min ⟶ 300 – 90 = 60 = 150

B, 1 mi ⟶ 150 ÷ 6 = 25

Answer: 25L

Q6.

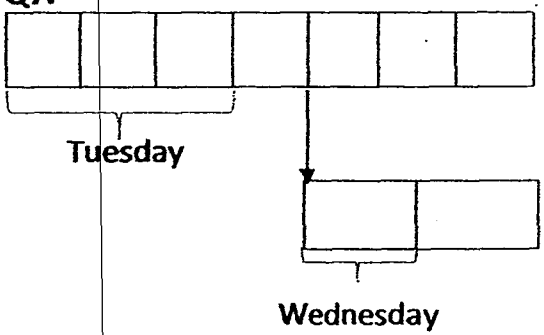
Big diff ⟶ 210

Small diff ⟶ 5 – 2 = 3

take ⟶ 210 ÷ 3 = 70

Answer: 70 days

Q7.



a) Left ⟶ $\frac{1}{2}$ x $\frac{4}{7}$ = $\frac{2}{7}$

b) 12 units ⟶ 732

c) Monday ⟶ 732 ÷ 12 x 7 = 427

Answer: (a) $\frac{2}{7}$ (b) 427 cookies

Q8.

(a) Wednesday ⟶ $\frac{1}{5}$ x 200 = 40

(b) % Thursday ⟶ 100 – 40 – 25 - 20 = 15

Thursday ⟶ $\frac{15}{100}$ x 200 = 30

Answer: (a) 40 Primary pupils (b) 30 Primary pupils

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Q9. B ⟶ 720 − 480 = 240

Empty cup ⟶ 400 − 240 = 160

Answer: 160g

Q10(a)

Total ⟶ 3.75 + 705 = 11.25

11.25kg = 11250g

Packets ⟶ $11250 \div 40 = 281\frac{1}{4}$

$= 281 \text{ R } 10$

Answer: (a) 281 packets (b) 10g

Q11(a)

Length of 4 squares ⟶ 45 − 7 = 38

Length of square ⟶ $38 \div 4 = 9.5$

52 − 38 = 14

52 − 9.5 = 42.5

Perimeter of shaded ⟶ 38 x 2 + 42.5 +14 + 9.5 x 3 = 161

Q11(b)

Total area ⟶ 45 x 52 = 2340

Area of square ⟶ 9.5 x 9.5 = 90.25

Area of rectangle ⟶ 52 x 7 = 364

Area of shaded ⟶ 2340 − 90.25 x 10 - 364 = 1073.50

Answer: (a) 161cm (b) 1073.5cm^2

Q12.

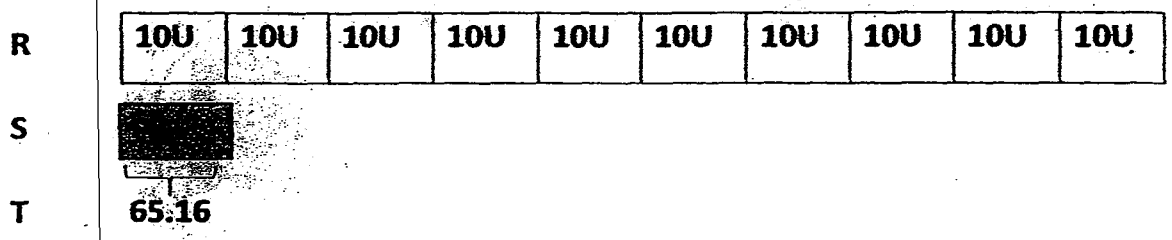
LCGA = 180 − 107 = 73

LGAF + LGFA = 180 − 107 = 73

Ly + Lz = 120 - 73 = 47

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Q13(a)



9 parts ⟶ 65.16
1 part ⟶ 65.16 ÷ 9 = 7.24
90 parts ⟶ 7.24 x 90 = 651.6

Q13(b)
Total ⟶ 7.24 x 111 = 803.64
(111 parts)

Answer: (a) 651.6 points (b) 803.64 points

Q14(a)

Roy (10 mins)------1.6
Roy (1 min) ------1.6 ÷ 10 = 0.16
Roy take ⟶ 8 ÷ 0.16 = 50

Q14(b)
Sid take ⟶ 50 – 10 = 40
Sid(1min) ⟶ 8 ÷ 40 = 0.2
Sid(1h) ⟶ 0.2 x 60 = 12

Answer: (a) 50mins (b) 12km/h

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Q15.

Groups ⟶ 156 ÷ 2 = 78
(big)
78 groups ⟶ 78 x 9 = 702
(big)

14 large ⟶ 9 x 7 = 63
14 small ⟶ 12 x 2 = 24
Diff ⟶ 63 – 24 = 39
Kaiming buy ⟶ 702 ÷ 39 = 18
Jim spend ⟶ 18 x 14/ 7 x 12 = 432

Answer: $432

Q16.

	Chicken	:	Duck
Before	5	:	3
After	5	:	1

$\frac{2}{3}$ of duck + $\frac{3}{3}$ of goat + $\frac{15}{5}$ of children ⟶ 457 x 3 = 1371

10 units — 1371 – 1051 = 320
1 unit — 320 ÷ 10 = 32
Chicken + duck — 32 x 8 = 256
Goat at first — 1057- 256 = 795

Answer: 795 goats

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Q17(a)

Perimeter of 1 blade --- $\frac{1}{2}$ x 3.14 x 12 + $\frac{1}{2}$ x 3.14= 39.25

Perimeter of figure ---- 39.25 x 4 = 157

Q17(b)

Area of triangle --- $\frac{1}{2}$ x 12 x 5 = 30

Total --- $\frac{1}{2}$ x 3.14 x 6.5 x 6.5 + 30 = 96.3325

Area of semi circle --- $\frac{1}{2}$ x 3.14 x 6 x 6 = 56.52

Blade --- 96.3325 – 56.52 ≈ 39.8

Answer: (a) 157m, (b) 39.8 m^2

Q18

100 units	130	M	Sat
100 units		F	

Sun --- M: 80 units + 104, F: 120 units. Total: 574

130 x20 / 100 = 26, 130 -26 = 104

200 units --- 574 – 104 = 470

400 units --- 470 x 3 = 940

Participants ---- 940 + 1230 + 104 = 1174

Money ---- 1174 x 25 = 29350

Answer: $29 350

END

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