NANYANG PRIMARY SCHOOL

FIRST SEMESTRAL EXAMINATION 2017

PRIMARY 6

MATHEMATICS

PAPER 1

DURATION: 50 MINUTES

Booklet A	**/ 20**
Booklet B	**/ 20**

Paper 1 Total: / 40

Name: _____ ( )

Class: Primary 6 ( )

Date: 3 May 2017

Any query on marks awarded should be raised by 18 May 2017. We seek your understanding in this matter as any delay in the confirmation of marks will lead to delays in the generation of results.

Parent's Signature: _____

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.

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

(20 marks)

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1 Which one of the following pairs of numbers has exactly four common factors?

(1) 12 and 26

(2) 16 and 26

(3) 16 and 30

(4) 18 and 30

2 What is the value of $80 \div 4000$?

(1) 50

(2) 5

(3) 0.02

(4) 0.002

3 The following fractions are arranged from the smallest to the largest.

$$\frac{3}{10}, \frac{2}{5}, \square, \frac{3}{5}, \frac{3}{4}$$

What could be the missing fraction in the box?

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

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

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

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

4 Jovan's mass was 32 kg last year. This year, his mass is 40 kg. What is the percentage increase in Jovan's mass?

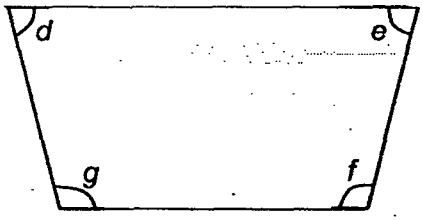
(1) 20%

(2) 25%

(3) 80%

(4) 125%

5 The figure shows a trapezium. Which of the two angles given in the figure add up to 180°?



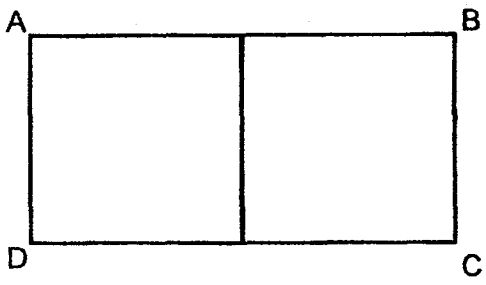
(1) $\angle d$ and $\angle e$

(2) $\angle e$ and $\angle f$

(3) $\angle f$ and $\angle g$

(4) $\angle e$ and $\angle g$

6 Rectangle ABCD is made up of 2 identical squares. The area of each square is 100 cm^2. Find the perimeter of Rectangle ABCD.



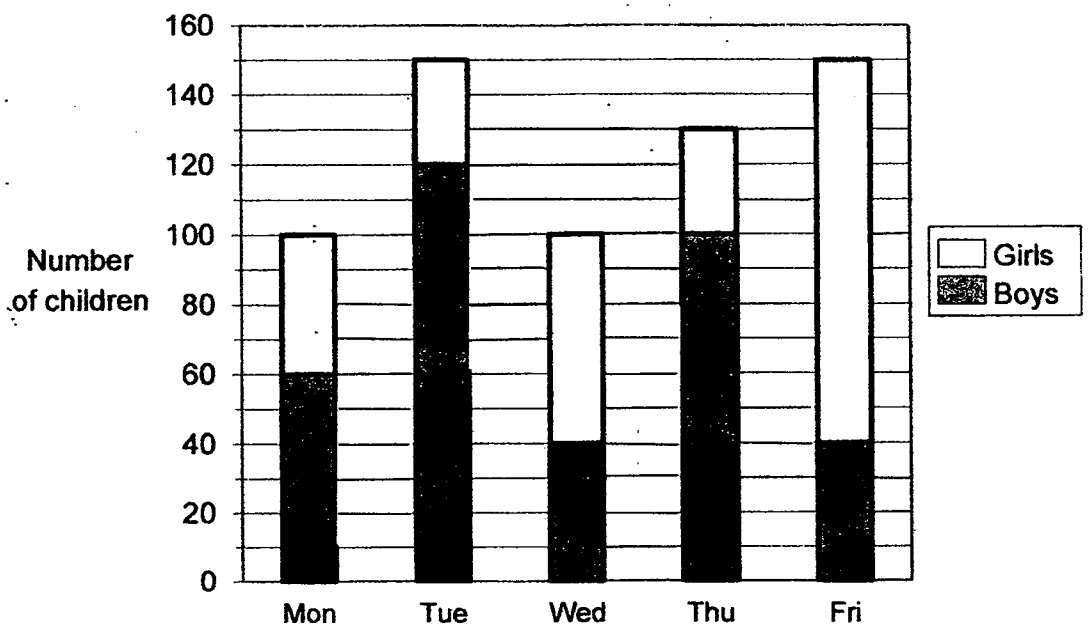
(1) 60 cm

(2) 80 cm

(3) 150 cm

(4) 300 cm

7 The graph shows the number of children at the park from Monday to Friday. On which two days were there the same number of girls at the park?



(1) Mon and Wed

(2) Wed and Thu

(3) Wed and Fri

(4) Tue and Thu

8 Alvin bought $3y$ stickers. Bernard bought 7 fewer stickers than Alvin. Charles bought $\frac{1}{4}$ as many stickers as Bernard. How many stickers did Charles buy?

(1) $\frac{3y+7}{4}$

(2) $\frac{3y-7}{4}$

(3) $3y+\frac{7}{4}$

(4) $3y-\frac{7}{4}$

9 There were 4500 participants in a marathon. 35% of the participants were female. How many female participants were there?

(1) 2925

(2) 2705

(3) 1575

(4) 1355

10 The ratio of the number of stamps Si Hui had to the number of stamps Pei Xuan had is 4 : 3. Pei Xuan had 84 stamps. How many stamps did Si Hui have?

(1) 48

(2) 63

(3) 112

(4) 196

11 Menon bought $\frac{5}{8}$ *l* of milk and drank $\frac{1}{3}$ of it. How much milk was left?

(1) $\frac{5}{24}$ *l*

(2) $\frac{7}{24}$ *l*

(3) $\frac{10}{24}$ *l*

(4) $\frac{23}{24}$ *l*

12 Which one of the following numbers is the smallest?

(1) 0.087

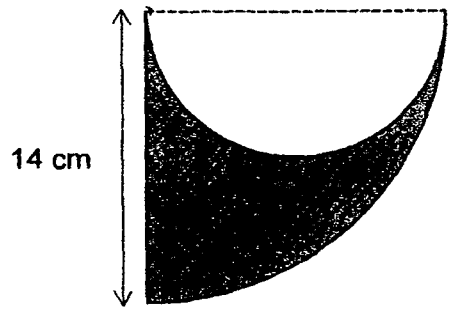
(2) 0.807

(3) 0.708

(4) 0.078

13 The figure is made up of a quarter circle and a semicircle. The radius of the quarter circle is 14 cm. Find the perimeter of the shaded part.

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



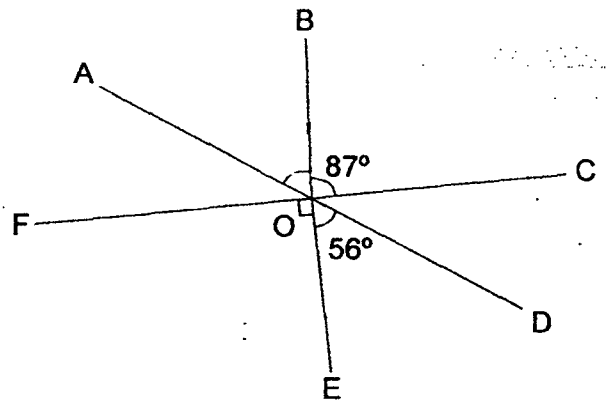
(1) 58 cm

(2) 44 cm

(3) 36 cm

(4) 22 cm

14 In the figure, AD and CF are straight lines. $\angle BOC = 87°$, $\angle DOE = 56°$ and $\angle EOF = 90°$. Find $\angle AOB$.



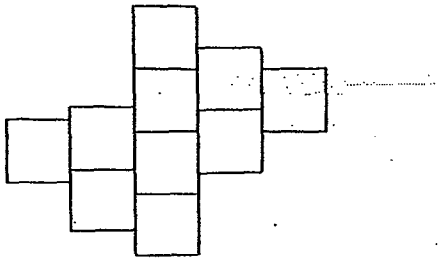
(1) 37°

(2) 53°

(3) 56°

(4) 59°

15 The figure is made up of 10 identical squares. The length of each square is 3 cm. Find the perimeter of the figure.



(1) 48 cm

(2) 51 cm

(3) 54 cm

(4) 57 cm

Name: _____( ) Class: Pr 6 ( )

PAPER 1 (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)

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16 Simplify the following algebraic expression.

$$4r + 15 + 12r \div (2 \times 3) - 7$$

Ans: _____

---

17 Suzie bought 3512 yellow buttons and 1648 blue buttons. How many more yellow buttons than blue buttons did she buy?

Ans: _____

---

18 Find the value of $16 + 8 \times (24 - 16 \div 4)$.

Ans: _____

---

19 Express $3\frac{1}{50}$ as a decimal.

Ans: _____

---

20 Round off 8.765 to the nearest tenth.

Ans: _____

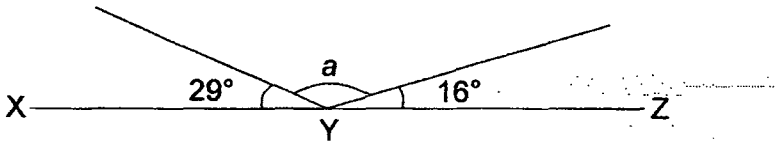
---

21 Express 18 *l* 52 ml in litres.

Ans: _____ *l*

---

22 In the figure, XYZ is a straight line. Find $\angle a$.



Ans: _____ °

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23 Tarita starts a savings account with $3600 at a bank. The interest rate is 2% per year. How much interest will she get in her savings account at the end of one year?

Ans: $_____

---

24 There were a total of 210 men and women who took part in a cooking competition. The ratio of the number of men to the number of women is 5 : 2. How many more men than women took part in the competition?

Ans: _____

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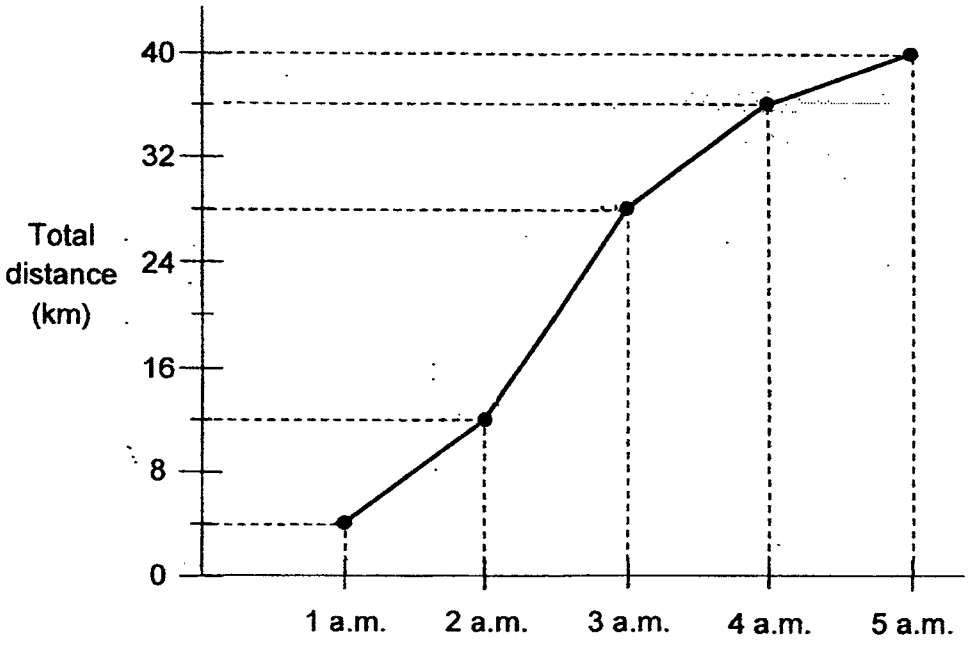
25 Jeremy took part in a cycling expedition. The line graph shows the total distance cycled by Jeremy from 1 a.m. to 5 a.m.



During which one-hour period was the distance cycled by Jeremy the greatest?

Ans: _____ a.m. to _____ a.m.

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

(10 marks)

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26 Annabel bought 10 packets of flour. Each packet of flour weighed 950 g. She used 1.2 kg of flour for some baking. How much flour had she left after baking?

Ans: _____ kg

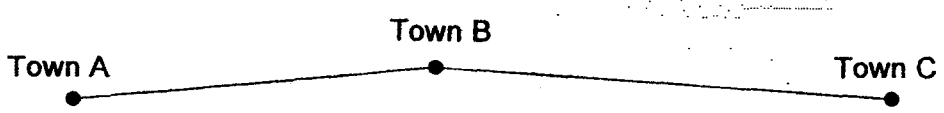
---

27 Yana had \$24 more than Trisha. 50% of the amount of money Yana had is equal to $\frac{3}{4}$ of the amount of money Trisha had. How much did they have altogether?

Ans: \$_____

---

28 Tim drove from Town A to Town C through Town B. He left Town A at 7.45 a.m. and reached Town C at 5.15 p.m. The time he took to travel from Town B to Town C was twice as long as the time he took to travel from Town A to Town B. What was the time taken by Tim to travel from Town A to Town B? Give your answer in minutes.



Ans: _____ min

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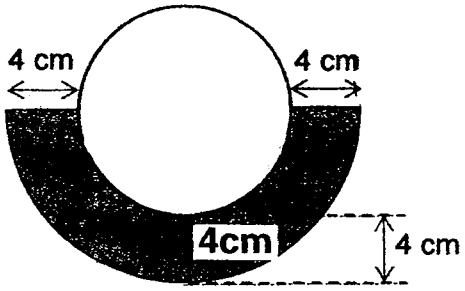
29 A circular piece of paper of radius 6 cm is placed on top of a semicircular piece of paper. Find the area of the shaded part. Leave your answer in terms of π.



Ans: _____ cm^2

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30 The table shows the marks obtained by Jun Yi in an examination. A portion of the table is covered by an ink blot.

Subject	Marks
English	9
Chinese	
Mathematics	9

For each subject, the marks obtained is a whole number and its maximum is 100. Jun Yi obtained an average of 86 marks for English and Mathematics. The total marks he obtained for Chinese and English is 176. How many marks did Jun Yi obtain for Chinese?

Ans: _____

FIRST SEMESTRAL EXAMINATION 2017

PRIMARY 6

MATHEMATICS

PAPER 2

DURATION: 1 HOUR 40 MINUTES

Paper 2 Total	**/ 60**
GRAND TOTAL	**/ 100**

Name: _____ ( )

Class: Primary 6 ( )

Date: 3 May 2017

Any query on marks awarded should be raised by 18 May 2017. We seek your understanding in this matter as any delay in the confirmation of marks will lead to delays in the generation of results.

Parent's Signature: _____

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PAPER 2

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

(10 marks)

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1 Qian Hao is $1\frac{1}{2}$ m tall, Amir is 1.65 m tall and Jinesh is 1.35 m tall.

What is the ratio of Qian Hao's height to Amir's height to Jinesh's height? Give your answer in the simplest form.

Ans: _____

---

2 The total mass of Jake and Lokesh is $15p$ kg. Jake is $6p$ kg.
If $p = 7$, what is the mass of Lokesh?

Ans: _____ kg

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3 At a funfair, the number of popsicles sold at Stall A was thrice the number of popsicles sold at Stall B. The number of popsicles sold at Stall A was 5 times the number of popsicles sold at Stall C. What is the ratio of the number of popsicles sold at Stall B to the number of popsicles sold at Stall C to the number of popsicles sold at Stall A?

Ans: _____

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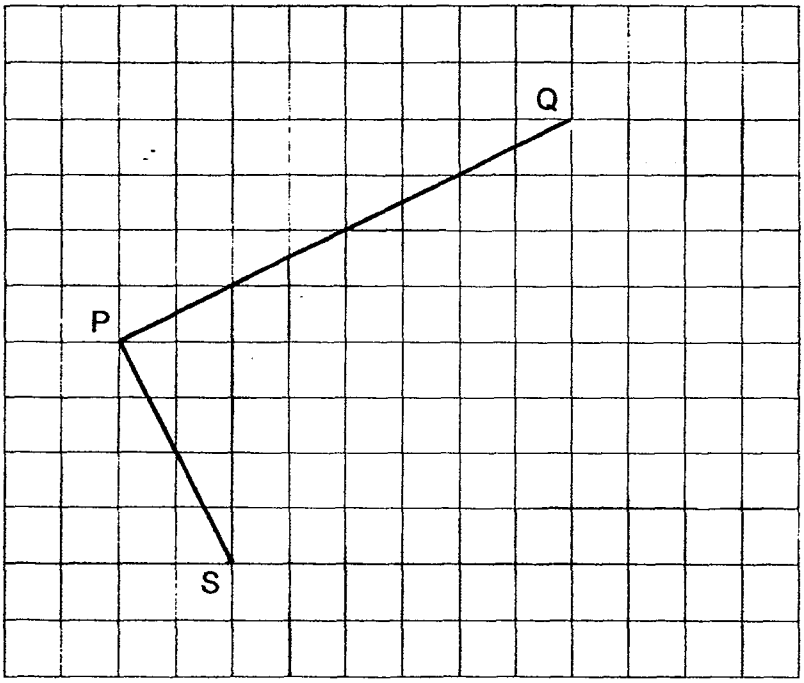
4 PQ and PS are two sides of a rectangle. Complete the rectangle by drawing the other 2 sides in the square grid below.



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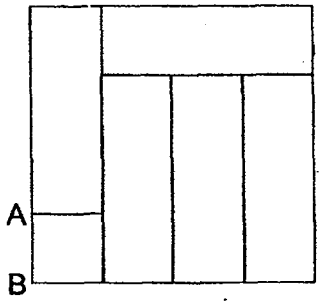
5 The figure is made up of 5 identical rectangles and a square. The area of the figure is 576 cm^2. Find the length of AB.



Ans: _____ cm

For questions **6** to **18**, show your working clearly in the space provided for each question 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)

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6 Leroy earns \$0.50 for every book that he sells. For every 60 books that he sells, he will earn an additional bonus of \$10. How much did he earn from selling 203 books?

Ans: _____ [3]

---

7 There were a total of 270 stickers in Bag A and Bag B. After 56 stickers from Bag A were moved to Bag B, the ratio of number of stickers in Bag B to the number of stickers in Bag A is 3 : 2. How many stickers were there in Bag A at first?

Ans: _____ [3]

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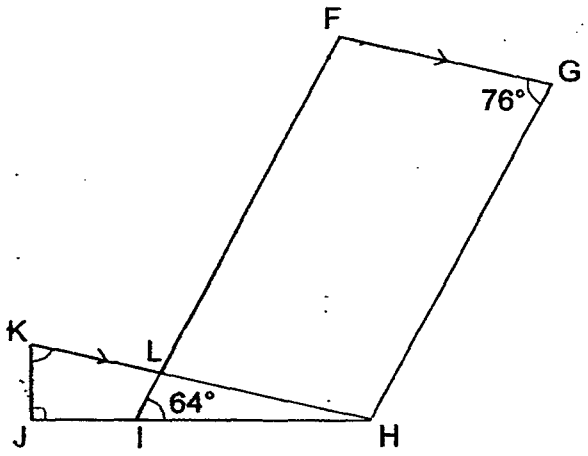
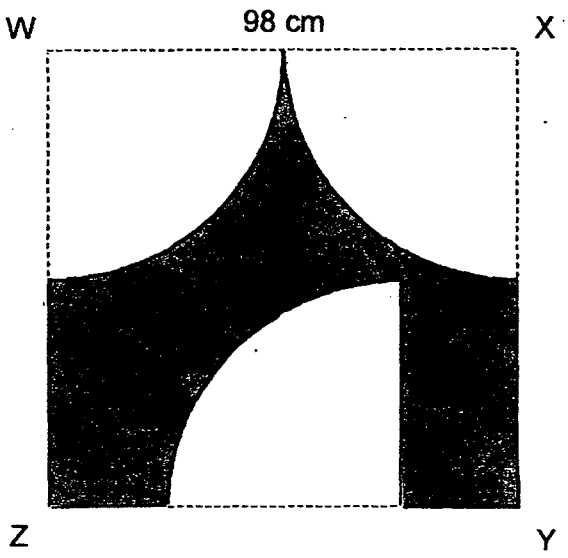
8 In the figure, FGHI is a trapezium and HJK is a right-angled triangle. $\angle FGH = 76°$, $\angle HIL = 64°$ and FG is parallel to KH. Find $\angle HKJ$.



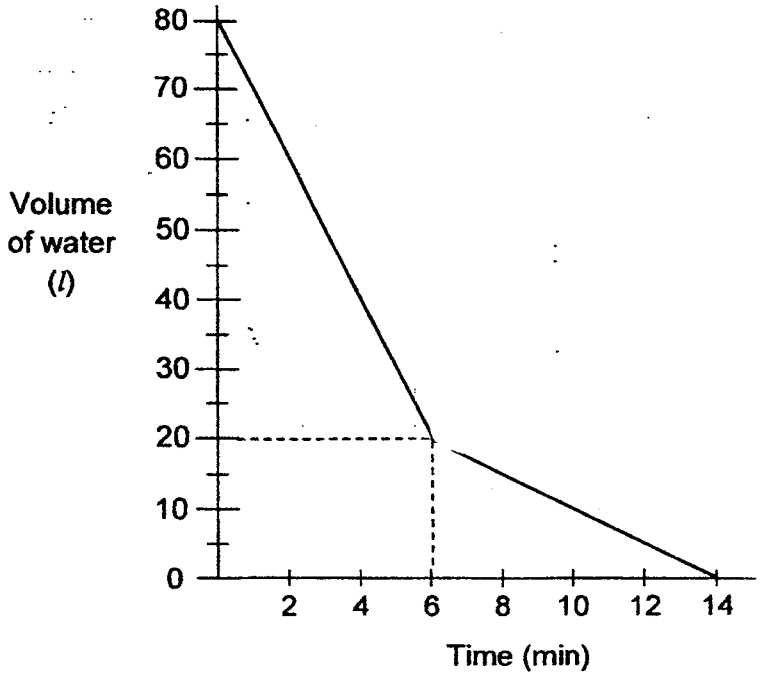
Ans: _____ [3]

9 The figure shows a square WXYZ with 3 identical quarter circles removed. The length of WX is 98 cm. Find the perimeter of the shaded part. (Take $\pi = \frac{22}{7}$)



Ans: _____ [3]

10 At first, a tank was filled with 80 *l* of water. The water was drained out using two taps, Tap A and Tap B. Both taps were turned on at the same time and after a few minutes, Tap B was turned off. The line graph shows the amount of water in the tank over 14 minutes.



(a) How many minutes after both taps were turned on was Tap B turned off?

(b) In one minute, how many litres of water flowed from Tap A?

Ans: (a) _____ [1]

(b) _____ [2]

11 Alicia bought a handbag for $428 after a discount of 20%. She also bought a purse at 28% discount. The total discount for the handbag and the purse was $121. What was the price of the purse before the discount?

Ans: _____ [4]

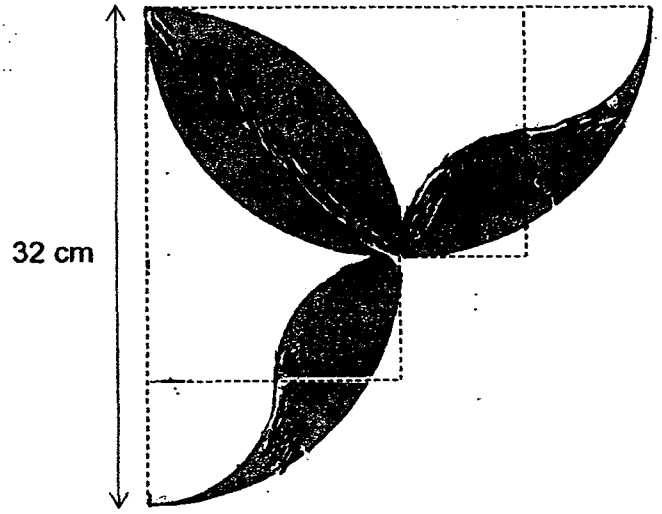
12 Chong and Darren brought a total sum of $4976 for a tour. At the end of the tour, the amount of money Chong had left was 5 times the amount he had spent. The amount of money Darren had spent was thrice the amount he had left. The total amount of money Chong and Darren had left was $2126. How much did Darren bring for the tour?

Ans: _____ [4]

13 Mdm Thana baked 360 muffins. $\frac{4}{9}$ of the muffins were chocolate muffins and the rest were blueberry muffins. After selling an equal number of chocolate and blueberry muffins, $\frac{3}{11}$ of the total muffins left were chocolate muffins. How many blueberry muffins did she sell?

Ans: _____ [4]

14 The figure is made up of two identical large semicircles and four identical small quarter circles. The diameter of the semicircle is 32 cm. Find the total area of the shaded parts. (Take $\pi = 3.14$)



Ans: _____ [4]

15 A box contained some pears and some mangoes. The ratio of the number of pears to the number of mangoes was 3 : 7 at first. After Mr Lim put in 28 pears and removed 60 mangoes from the box, the number of pears became equal to the number of mangoes in the box.

(a) How many pears were there in the box at first?

(b) How many fruits were there in the box at first?

Ans: (a) _____ [3]

(b) _____ [2]

16 Bernice had 600 beads. 20% of them were purple and the rest were green. She used 80 purple beads to make a necklace. After that, her mother gave her some purple beads and the percentage of purple beads became 40% of the total number of beads. How many purple beads did Bernice's mother give her?

Ans: _____ [5]

17 A florist ordered some flowers. 800 of the flowers were tulips while the rest were roses. $\frac{2}{5}$ of the roses were red. $\frac{1}{2}$ of the remaining roses were white and the rest of the remaining roses were blue. Given that 10% of the flowers were blue roses, how many flowers did she order?

Ans: _____ [5]

18 Mrs Heng wanted to decorate a rectangular piece of wall in the music hall. She divided the top part of the wall into equal parts of length 0.8 m and painted each part as shown in Figure 1. She divided the bottom part of the same wall into equal parts of length 1.2 m and painted each part as shown in Figure 2.

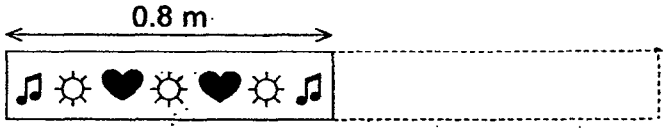


Figure 1

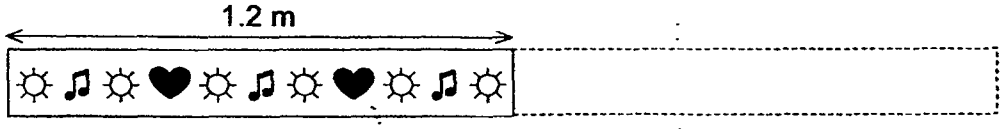


Figure 2

After she completed the decoration, there were 108 more ☼ than ♫ on the wall. Find the length of the wall.

Ans: _____ [4]

END OF PAPER

EXAM PAPER 2017
LEVEL : PRIMARY 6
SCHOOL : NANYANG PRIMARY SCHOOL
SUBJECT : MATH
TERM : SA1

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

Q16. 6r + 8 Q17. 1864 Q18. 176 Q19. 3.02 Q20. 8.8

Q21. 18.052 Q22. 135 Q23. 72 Q24. 90 Q25. 2a.m to 3a.m

Q26. 8.3 Q27. 120 Q28. 190 Q29. 36π Q30. 83

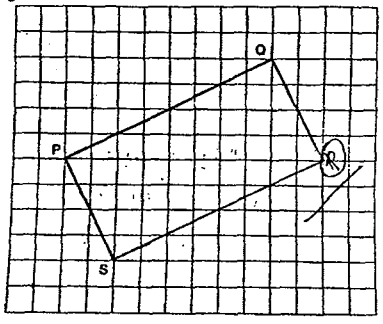
PAPER 2

Q1. 1.5:1.65:1.35 = 10: 11 : 9 Answer: 10:11:9

Q2. J + L → 15p kg = 15(7) kg = 105kg
Jake → 6p kg = 6(7) kg = 42kg
Lokesh → 105kg – 42kg = 63kg Answer: 63

Q3. A:B = 15nu:5nu A:C = 15nu:3nu
B:C:A = 5:3:15 Answer: 5:3:15

Q4.



Q5. 3 X 1 = 3
3 X 5 = 15
1 X 1 = 1 1 + 15 = 16
16u → 576
1u → 36
36 = 6 X 6 Answer: 6

Q6. 203/60 = 3 R23
60 X 3 = 180
203 – 180 = 23
3 X $10 = $30
203 X $0.50 = $101.50
$101.50 + $30 = $131.50 Answer: $131.50

Q7. 5u → 270
1u → 54
2u → 108
108 + 56 = 164 Answer: 164

Q8. 360 – 76 – 76 = 208
208/2= 104
180 – 76 = 104
180 – 104 – 64 = 12
180 – 12 – 90 = 78 Answer: 78°

Q9. 0.25 X 22/7 X 98 = 77
77 x 3= 231
98/2 = 49
231 + 49 + 49 + 49 + 49 = 427 Answer: 427cm

Q10. 14- 6 = 8
8min → 20
20/8 = 2.5 Answer: a) 6 minutes b) 2.5L

Q11. 80% → 428
1% → 5.35
20% → 107
121 – 107 = 14
28% → 14
1% → 0.50
100% → $50 Answer: $50

Q12. 1p + 5u → 2126 4p + 6u → 4976
6p + 30u → 1278 20p + 30u → 24880
14p → $24880 - $12756 = $12124
1p → $ 866
3p + 1p = 4p
4p → $3464 Answer: $3464

Q13. 25 + 20 = 45
45nu → 360
1nu → 8
25 – 8 = 17
17nu → 136 Answer: 136

Q14. 32/2 = 16
16 X 16 = 256
0.25 X 3.14 X 16 X 16 = 200.96
256 – 200.96 = 55.04
0.5 X 16 X 16 = 128
128 – 55.04 = 72.96
72.96 X 2 = 145.92
145.92 X 2 = 291.84 Answer: 291.84 cm^2

Q15. 4u → 60 + 28 = 88
1u → 22
3u → 66
7 + 3 = 10
10u → 22 X 10 = 220 Answer: a) 66 b) 220

Q16. 100% → 600
1% → 6
20% → 120
80% → 480
120 – 80 = 40
40 + 280 + 480 = 800 Answer: 280

Q17. 3nu → 10% of the total flowers
30nu → 100% of the total flowers
4nu + 6nu = 10nu
30-10 = 20nu
20nu → 66.333...% of the total flowers
20nu → 800
1nu → 40
30nu → 1200 Answer: 1200

Q18. 12 + 9 = 21
6 + 6= 12
21 – 12 = 9
108/9 = 12
12 X 2.4 = 28.8 Answer: 28.8m