NANYANG PRIMARY SCHOOL

FIRST SEMESTRAL ASSESSMENT 2019

PRIMARY 6

MATHEMATICS PAPER 1 (BOOKLET A)

Total Duration for Booklets A and B: 1 hour

Additional materials: Optical Answer Sheet (OAS)

INSTRUCTIONS TO PUPILS

1. Do not turn over this page until you are told to do so.
2. Follow all instructions carefully.
3. Answer all questions.
4. Shade your answers in the Optical Answer Sheet (OAS) provided.
5. The use of calculators is **NOT** allowed.

Name: _____ ( )

Class: Primary 6 ( )

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) and shade your answer on the Optical Answer Sheet. (20 marks)

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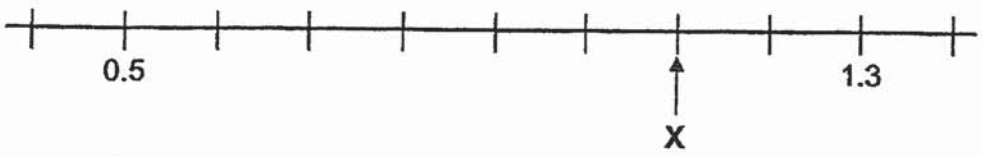
1 In the number line below, what is the value of X?



(1) 0.9

(2) 1.0

(3) 1.1

(4) 1.2

2 Find the value of $\frac{4}{7} \div \frac{2}{3}$.

(1) $\frac{6}{7}$

(2) $\frac{8}{21}$

(3) $1\frac{1}{6}$

(4) $2\frac{5}{8}$

3 Joan had some rubber bands. 40% of her rubber bands were blue and the remaining rubber bands were red. She gave away 75% of her red rubber bands. What percentage of her rubber bands were given away?

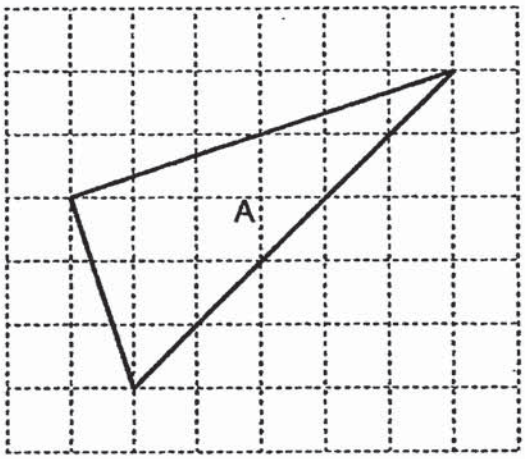
(1) 15%

(2) 30%

(3) 45%

(4) 60%

4 The square grid below shows Triangle A. What type of triangle is Triangle A?



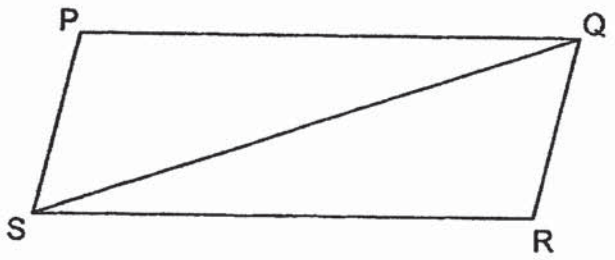
(1) Equilateral triangle

(2) Isosceles triangle

(3) Right-angled triangle

(4) Obtuse-angled triangle

5 In the figure below, PQRS is a parallelogram.



Which one of the following is false?

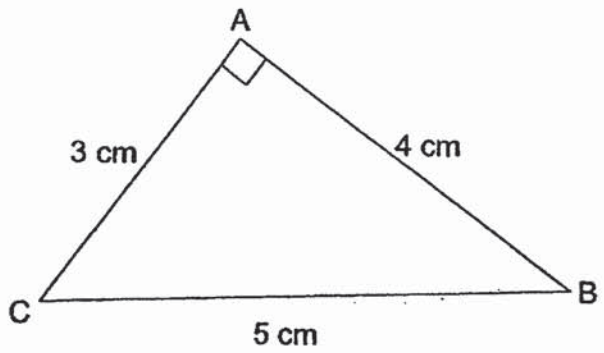
(1) PS = QR

(2) $\angle SPQ = \angle QRS$

(3) $\angle QPS + \angle PSR = 180^\circ$

(4) PQ // PS

6 What is the area of triangle ABC shown below?



(1) 6 cm^2

(2) 7.5 cm^2

(3) 10 cm^2

(4) 12 cm^2

7 Find the area of a circle of radius 10 cm.

Leave your answer in terms of π.

(1) 10π cm^2

(2) 20π cm^2

(3) 50π cm^2

(4) 100π cm^2

8 Which of the following is likely to be the length of the whiteboard in the classroom?

(1) 2 cm

(2) 2 m

(3) 20 m

(4) 2 km

*Use the information below to answer questions **9** and **10**.*

The table below shows the amount of rainfall from March to June.

Month	Amount of rainfall (mm)
March	744
April	162
May	696
June	6

9 Which month had the most amount of rainfall?

(1) March

(2) April

(3) May

(4) June

10 The amount of rainfall in July was a 50% decrease from the amount in June. How much was the amount of rainfall in July?

(1) 3 mm

(2) 9 mm

(3) 12 mm

(4) 18 mm

11 Anna, Beth and Cate had some stamps. Anna had $\frac{3}{5}$ of what Cate had and $\frac{3}{7}$ of what Beth had. Find the ratio of the number of stamps Beth had to the number of stamps Cate had.

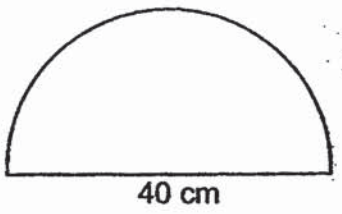
(1) 3 : 5

(2) 3 : 7

(3) 5 : 7

(4) 7 : 5

12 The figure shown below is a semicircle of diameter 40 cm. What is the perimeter of the figure? (Take $\pi = 3.14$)



(1) 62.8 cm

(2) 102.8 cm

(3) 125.6 cm

(4) 165.6 cm

13 Nabil had 3460 g of cookies to sell at a carnival. He packed them into as many packets of 100 g as possible and had some cookies left unpacked. How much more cookies would he need so that he could pack 1 more packet of cookies of exactly 100 g?

(1) 34 g

(2) 34.6 g

(3) 40 g

(4) 60 g

14 Express $8p + 6 - p + 3p - 2$ in the simplest form.

(1) $4p - 4$

(2) $4p + 4$

(3) $10p - 4$

(4) $10p + 4$

15 At a community event, there were some children and 156 adults. $\frac{2}{3}$ of the children and $\frac{1}{6}$ of the adults received a gift. Sixty people received a gift. How many children were there at the event?

(1) 34

(2) 51

(3) 66

(4) 207

NANYANG PRIMARY SCHOOL

FIRST SEMESTRAL ASSESSMENT 2019

PRIMARY 6

MATHEMATICS PAPER 1 (BOOKLET B)

Total Duration for Booklets A and B: 1 hour

INSTRUCTIONS TO PUPILS

1. Do not turn over this page until you are told to do so.
2. Follow all instructions carefully.
3. Answer all questions.
4. Write your answers in this booklet.
5. The use of calculators is **NOT** allowed.

Name: _____ ( )

Class: Primary 6 ( )

Booklet B	/ 25

Any query on marks awarded should be raised by 24 May 2019. We seek your understanding in this matter as any delay in the confirmation of marks will lead to delays in the generation of results.

Questions **16** to **20** carry **1** mark each. Write your answers in the spaces provided. For questions which require units, give your answers in the units stated.

(5 marks)

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16 Express $2\frac{3}{10}$ as a decimal.

Ans: _____

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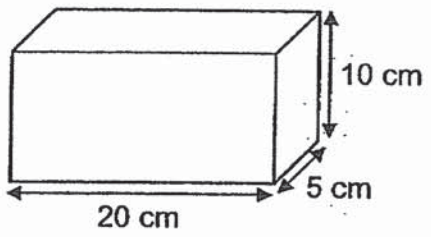
17 Find the volume of the cuboid shown below.



Ans: _____ cm^3

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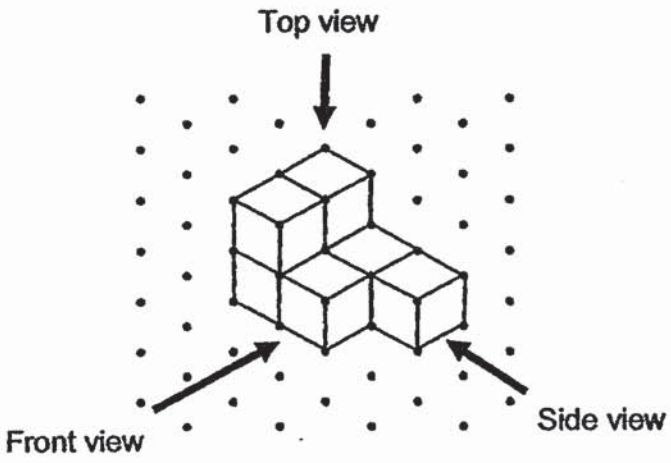
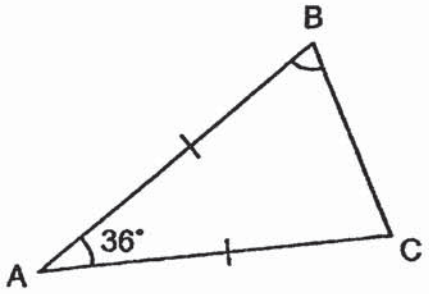
18 John stacked 7 unit cubes and glued them together to form the solid below.



Draw the top view of the solid on the grid below.

Top View

19 In the figure below, ABC is an isosceles triangle. AB = AC. $\angle BAC = 36^\circ$. Find $\angle ABC$.



Ans: _____ °

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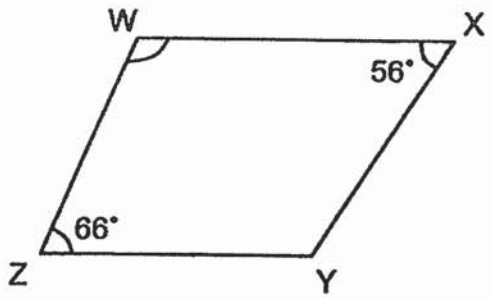
20 In the figure below, WXYZ is a trapezium and WX is parallel to ZY. $\angle WXY = 56^\circ$ and $\angle WZY = 66^\circ$. Find $\angle XWZ$.



Ans: _____ °

Questions **21** 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. (20 marks)

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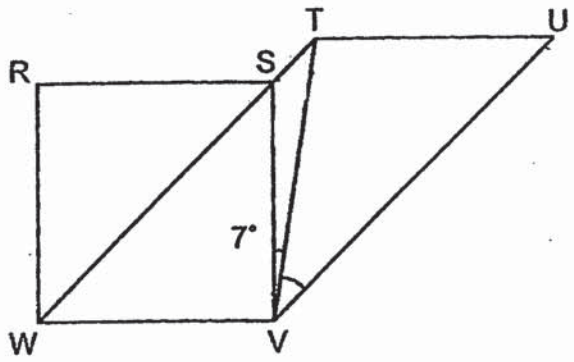
21 In the figure below, RSVW is a square and WTUV is a parallelogram. WST is a straight line. $\angle TVS = 7^\circ$. Find $\angle TVU$.



Ans: _____ °

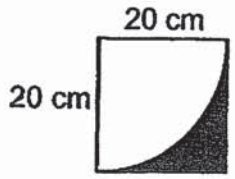
---

22 Find the circumference of a circle of diameter 28 m. (Take $\pi = \frac{22}{7}$)

Ans: _____ m

---

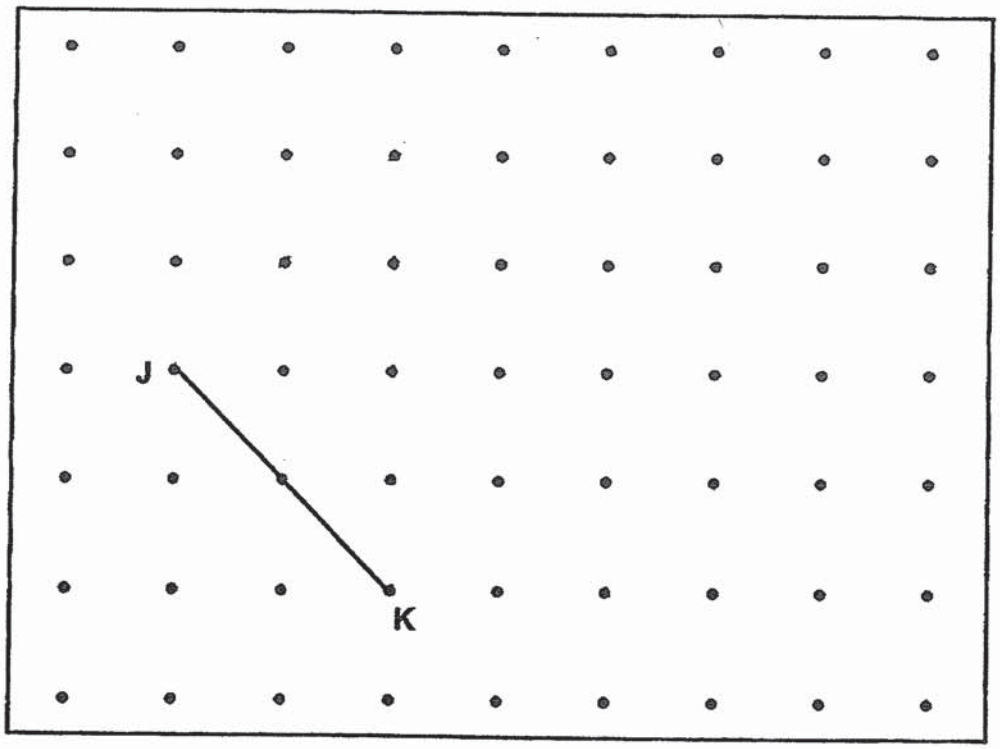
23 The figure below shows a square and a quarter circle. The length of the square is 20 cm. Find the area of the shaded part. Leave your answer in terms of π.



Ans: _____ cm^2

---

24 A straight line JK is drawn inside a box.



L is one of the dots inside the box. Draw two lines JL and KL to complete a triangle JKL with JL = JK.

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25 The number of stamps that Arthur had was $\frac{6}{7}$ of what James had. What was the ratio of the number of stamps Arthur had to the total number of stamps that both of them had?

Ans: _____

---

26 Adelle used green beads and orange beads to make a necklace. For every 12 green beads she used, she would use 3 orange beads. She used 117 more green beads than orange beads to make the necklace. How many green beads did Adelle use to make the necklace?

Ans: _____

---

27 Study the pattern below.

$$\begin{aligned} 3 &= 3 \\ 3 \times 3 &= 9 \\ 3 \times 3 \times 3 &= 27 \\ 3 \times 3 \times 3 \times 3 &= 81 \\ 3 \times 3 \times 3 \times 3 \times 3 &= 243 \\ 3 \times 3 \times 3 \times 3 \times 3 \times 3 &= 729 \\ 3 \times 3 \times 3 \times 3 \times 3 \times 3 \times 3 &= 2187 \\ 3 \times 3 \times 3 \times 3 \times 3 \times 3 \times 3 \times 3 &= 6561 \\ 3 \times 3 \times 3 \times 3 \times 3 \times 3 \times 3 \times 3 \times 3 &= 19683 \end{aligned}$$

Find the digit in the ones place of the product below.

$$3 \times 3 \times 3 \times 3 \times 3 \times 3 \times 3 \times 3 \times 3 \times 3 \times 3 \times 3 \times 3 \times 3 \times 3$$

Ans: _____

---

28 Aida had $\frac{5}{8}$ kg of flour. She packed the flour equally into 5 bags. How much flour was there in one bag?

Ans: _____ kg

---

29 The ratio of the number of red pens to the number of black pens in a bookstore was 3 : 7. An equal number of red pens and black pens were sold. In the end, the ratio of the number of red pens left to the number of black pens left was 5 : 13. There were 20 red pens in the end. How many red pens were sold?

Ans: _____

---

30 Jess had a book that had 600 pages. At the end of the first week, the ratio of the number of pages she read to the number of pages left unread was 1 : 2. At the end of the second week, the ratio of the number of pages she read to the number of pages left unread was 5 : 1. How many pages of the book did she read in the second week?

Ans: _____

End of Paper

NANYANG PRIMARY SCHOOL

FIRST SEMESTRAL ASSESSMENT 2019

PRIMARY 6

MATHEMATICS PAPER 2

Duration: 1 hour 30 minutes

INSTRUCTIONS TO PUPILS

1. Do not turn over this page until you are told to do so.
2. Follow all instructions carefully.
3. Answer all questions.
4. Write your answers in this booklet.
5. The use of an approved calculator is expected, where appropriate.

Name: _____ ( )

Class: Primary 6 ( )

Parent's Signature: _____

Booklet A	**/ 20**
Booklet B	**/ 25**
Paper 2	**/ 55**
Total	**/ 100**

Any query on marks awarded should be raised by 24 May 2019. We seek your understanding in this matter as any delay in the confirmation of marks will lead to delays in the generation of results.

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)

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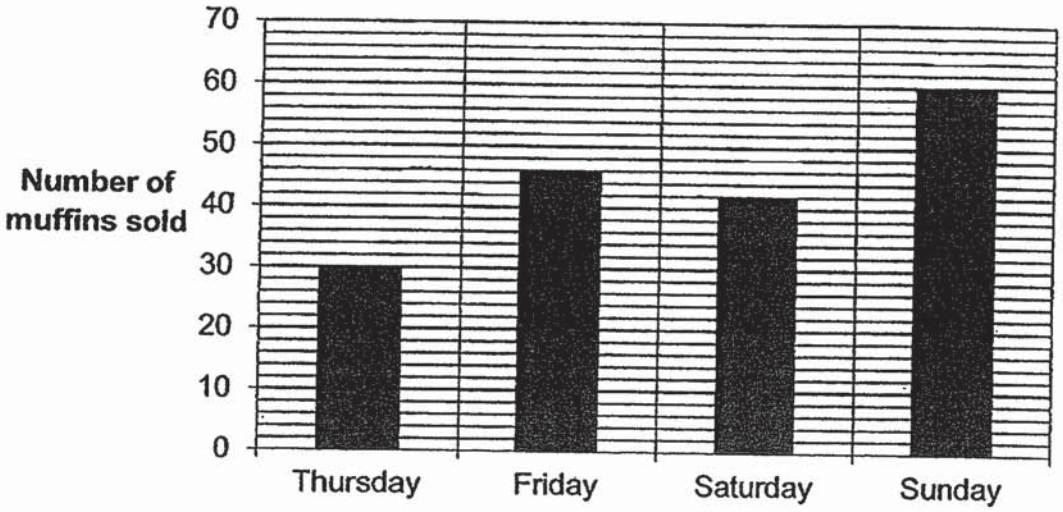
1 The bar graph below shows the number of muffins sold at a shop from Thursday to Sunday.



Complete the table with the number of muffins sold on Friday and Sunday.

Day	Number of muffins sold
Thursday	30
Friday	
Saturday	42
Sunday	

---

2 A wheel of radius 21 cm made 1 complete turn. Find the distance covered. (Take $\pi = \frac{22}{7}$)

Ans: _____ cm

---

3 Mrs Lam deposited $400 000 in a fixed deposit account which paid her an interest of 1.2% per year. How much interest did she receive at the end of 1 year?

Ans: $_____

---

4 The table shows the taxi fare rates.

TAXI FARE RATES	
First km	$3.20
Every additional 400 m or less	$0.22

Kenny took a taxi from his home to his office. The distance travelled was 6.8 km. How much did Kenny pay for the trip?

Ans: $_____

---

5 John and 5 other swimmers completed a 100-m swim. The average time taken by John and the 5 swimmers was 99 seconds. Excluding John, the average time taken by the 5 swimmers was 101 seconds. What was the time taken by John?

Ans: _____ s

For questions **6** to **17**, 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. (45 marks)

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6 Aaron had a sum of money at first. He spent \$242 of his money on a pair of shoes and $\frac{1}{5}$ of the remaining money on a wallet. He had \$56 left. How much money did Aaron have at first?

Ans: _____ [3]

---

7 The figure below shows two circles. The radius of the small circle is 21 cm. The radius of the big circle is 35 cm. Find the area of the shaded part. (Take $\pi = \frac{22}{7}$)

Ans: _____ [3]

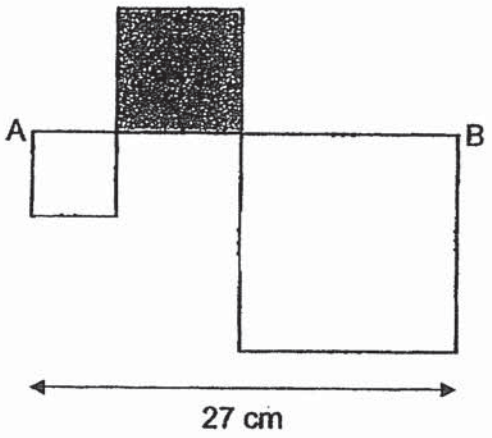
---

8 Melvin wanted to train for a 10-km marathon. He started by running 2.4 km in the first week. He increased his distance by 800 m every week from the previous week. In which week would the distance that he ran be more than 10 km but less than 11 km?

Ans: _____ [3]

---

9 The figure below is formed using 3 squares of different sizes. The area of the figure is 285 cm^2. The area of the shaded square is 64 cm^2. The length of the straight line AB is 27 cm. The length of each square is a whole number when measured in cm. Find the length of the smallest square.



Ans: _____ [3]

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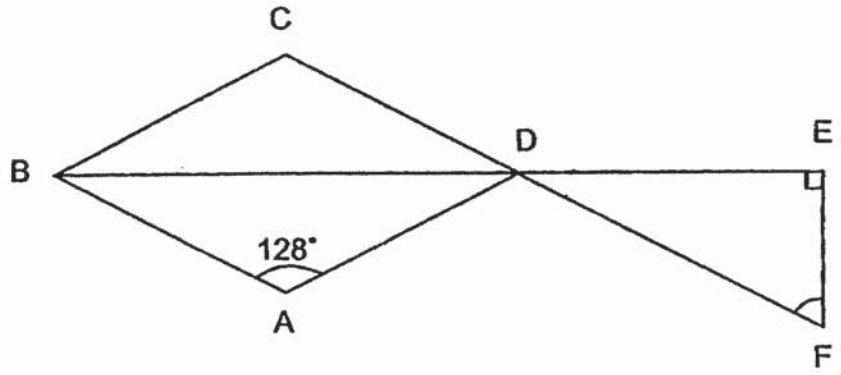
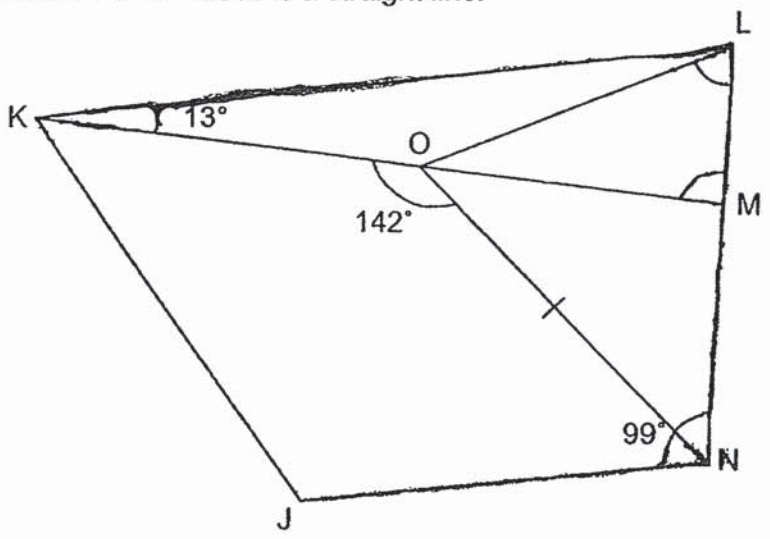
10 In the figure below, ABCD is a rhombus and DEF is a right-angled triangle. BDE and CDF are straight lines. $\angle BAD = 128^\circ$. Find $\angle DFE$.



Ans: _____ [3]

11 In the figure below, JKLN is a trapezium and NOL is an isosceles triangle. KL is parallel to JN and ON = NL. $\angle JNL = 99°$, $\angle NOK = 142°$ and $\angle MKL = 13°$. KOM is a straight line.



(a) Find $\angle KML$.

(b) Find $\angle MLO$.

Ans: (a) _____ [1]

(b) _____ [3]

12 Two different shops offer the following discounts for the same tennis racket priced at $180 before discount.

(a) Which shop sold the racket at a lower price after discount?

(b) What was the difference in the price of the tennis racket after discount between the two shops?

Ans: (a) _____ [1]

(b) _____ [3]

13 Mr Ng had a total of 208 apples and pears at first. The ratio of the number of apples to the number of pears was 8 : 5 at first. After he bought some apples, the ratio of the number of apples to the number of pears then became 7 : 4. How many apples did he buy?

Ans: _____ [4]

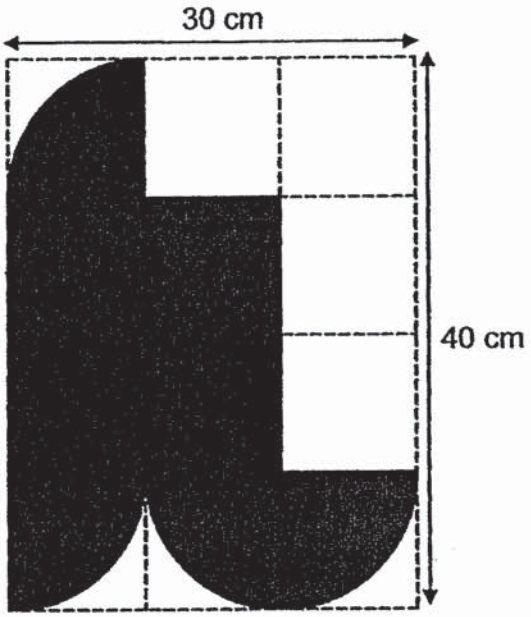
14 Mr Lee spent a total of $28.50 on some files, rulers and highlighters. He bought twice as many highlighters as files. Each ruler cost $0.50 and each file cost thrice as much as each highlighter. He spent $4.50 more on the files than on the highlighters. How many rulers did he buy?

Ans: _____ [4]

15 Benny, Charles and Dinesh had some stickers. Benny had 80 more stickers than Charles. The number of stickers Charles had was $\frac{4}{9}$ as many as Dinesh's stickers. During a game, Benny lost $\frac{1}{4}$ of his stickers to Dinesh. In the next game, Charles won $\frac{3}{5}$ of Dinesh's stickers. In the end, Charles had 148 more stickers than Dinesh. How many stickers did Dinesh have in the end?

Ans: _____ [4]

16 The figure is drawn on a rectangular piece of paper 30 cm by 40 cm as shown below. Its outline consists of 4 identical quarter circles and 5 straight lines.



(a) Find the perimeter of the shaded figure.

(b) Find the area of the shaded figure.
(Take $\pi = 3.14$)

Ans: (a) _____ [2]

(b) _____ [3]

17 Jolene had some red, yellow and blue beads. The ratio of the number of red beads to the number of yellow beads was 2 : 3. The ratio of the number of yellow beads to the number of blue beads was 4 : 1. She then bought some blue beads and lost 9 red beads. In the end, the ratio of the number of red beads to the total number of yellow and blue beads became 1 : 6 and the ratio of the number of yellow beads to the number of blue beads became 2 : 3.

(a) At first, what was the ratio of the number of red beads to the number of yellow beads to the number of blue beads?

(b) How many blue beads did she buy?

Ans: (a) _____ [1]

(b) _____ [4]

End of Paper

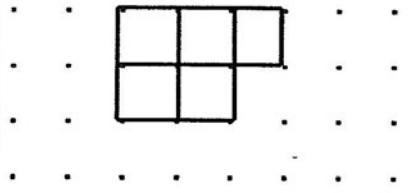
SCHOOL : NANYANG PRIMARY SCHOOL
LEVEL : PRIMARY 6
SUBJECT : MATH
TERM : 2019 SA1

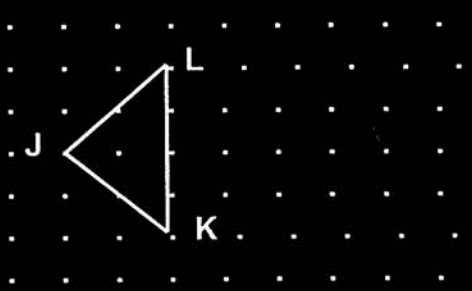
PAPER 1 BOOKLET A

Q 1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10
3	1	3	3	4	1	4	2	1	1

Q 11	Q12	Q13	Q14	Q15
4	2	3	4	2

PAPER 1 BOOKLET B

Q16)	$2\frac{3}{10}$ X 10 = $2\frac{30}{100}$ = 2.3
Q17)	10 X 5 X 20 = 50 X 20 = 1000 cm^3
Q18)	
Q19)	180° – 36° = 144° 144° ÷ 2 = 72°
Q20)	180° – 66° = 114°

Q21)	$90° \div 2 = 45°$ $180° - 45° = 135°$ $135° + 7 = 142°$ $180° - 142° = 38°$ (≤WTV)
Q22)	$\frac{22}{7}$ x 28 = 88 m
Q23)	20 x 20 x π = 20 x 2 x 10 x π = 40 x 10 x π = 400π 400$\pi \div 4 = 100\pi$ 400 – 100π = (400 - 100π)
Q24)	
Q25)	A : j 6 : 7 6 + 7 = 13 A : T 6 : 13
Q26)	12 – 3 = 9 117 ÷9 = 13 13 x 12 = 156
Q27)	9
Q28)	$\frac{5}{8}$ kg ÷ 5 = $\frac{8}{8}$ x $\frac{1}{5}$ = $\frac{1}{8}$ kg
Q29)	R : B : D 6 : 14 : 8 20÷ 5 = 4 6 – 5 = 1 1 x 4 = 4

Q30)	R : U : T 2 : 4 : 6 5 : 1 : 6 600 ÷ 6 = 100 4 – 1 = 3 3 x 100 = 300

PAPER 2

Q1)	Friday --- 46 Sunday --- 60
Q2)	21 x 2 = 42 $\frac{22}{7}$ x 42 = 132 cm
Q3)	$400000 ÷ 100 = $4000 $4000 x 1.2 = $4800
Q4)	13 + 2 = 15 (15 x $0.22) + $3.20 = $6.50
Q5)	5 + 1 = 6 99 x 6 = 594 101 x 5 = 505 594 – 505 = 89 s
Q6)	5 – 1 = 4 $56 ÷4 = $14 $14 x 5 = $70 $242 + $70 = $312
Q7)	21 x 21 x $\frac{22}{7}$ = 1386 35 x 35 = $\frac{22}{7}$ 3850 3850 – 1386 = 2464 cm²
Q8)	10km = 10000m 2.4km = 2400m 10000m – 2400m = 7600 7600 ÷ 800 = 9.5 9.5 ≈ 10 800 x 10 = 8000 8000 + 2400 = 10400 10400 ÷ 1000 = 10.4 10 + 1 = 11

Q9)	285 – 64 = 22 27 – 8 = 19 19 – 5 = 14 (5x5)+(14x14) = 25 + 196 = 221 ANS: 5
Q10)	180° – 128° = 52° 52° ÷ 2 = 26° 26° + 90° = 116° 180° – 116° = 64°
Q11)	a)180° – 99° = 81° 180° – 13° – 81° = 86° b)180° – 86° = 94° 180° – 142° = 38° 38° + 94° = 132° 180° – 132° = 48° 180° – 48° = 132° 132° ÷ 2 = 66°
Q12)	a)Shop P b)\$180 – \$50 = \$130 (p) $\frac{25}{100}$ x \$180 = \$45 \$180 – \$45 = \$135 (Q) \$135 – \$130 = \$5
Q13)	A : P 8 : 5 7 : 4 A : P : J 32 : 20 : 52 35 : 20 : 52 208 ÷ 52 = 4 55 – 52 = 3 3 X 4 = 12 apples
Q14)	\$4.50 x 5 = \$22.50 \$28.50 – \$22.50 = \$6 \$6 ÷ \$0.50 = 12 rulers

Q15)	$\frac{3}{5}$ of D = 6u + 12 (6u+12)+ 4u = (10u+12) (10u+20) – (6u+12) = (4u+8) (10u+12) – (4u+8) = 6u + 4 148 – 4 = 144 144 ÷ 6 = 24 24 x 4 = 96 96 + 8 = 104 stickers
Q16)	30 ÷ 3 = 10 40 ÷ 4 = 10 10 x 8 = 80 40 ÷ 2 = 20 20 x 3.14 = 62.8 62.8 + 80 = 142.8 20 x 20 = 400 10 x 10 x 3.14 = 314 314 + 400 = 714 a)142.8cm b)714 cm^2
Q17)	a)R : Y : B 2 : 3 4 : 1 8 : 12 : 3 b)8 – 5 = 3 9 ÷ 3 = 3 18 – 3 = 15 15 x 3 = 45