603 / SA1 / 7

CHIJ ST NICHOLAS GIRLS' SCHOOL (PRIMARY)

Primary 6 Mathematics

2022 Mid-Year Assessment

Paper 1

Booklet A

10 May 2022

15 questions
20 marks

Total Time for Booklets A and B: 1 hour

INSTRUCTIONS TO CANDIDATES

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

This booklet consists of 10 printed pages.

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. Which one of the following has the digit 5 in the hundred thousands place?

   (1) 8 325 709

   (2) 6 127 594

   (3) 4 850 213

   (4) 2 569 817

2. Which one of the following is the same as 70 802?

   (1) 70 + 80 + 2

   (2) 700 + 80 + 2

   (3) 7000 + 80 + 2

   (4) 70 000 + 800 + 2

3. Find the value of $10 \div \frac{3}{8}$.

   (1) $26\frac{2}{3}$

   (2) $3\frac{3}{4}$

   (3) $\frac{8}{30}$

   (4) $\frac{3}{80}$

4. What is the sum of 14 and 2 hundredths?

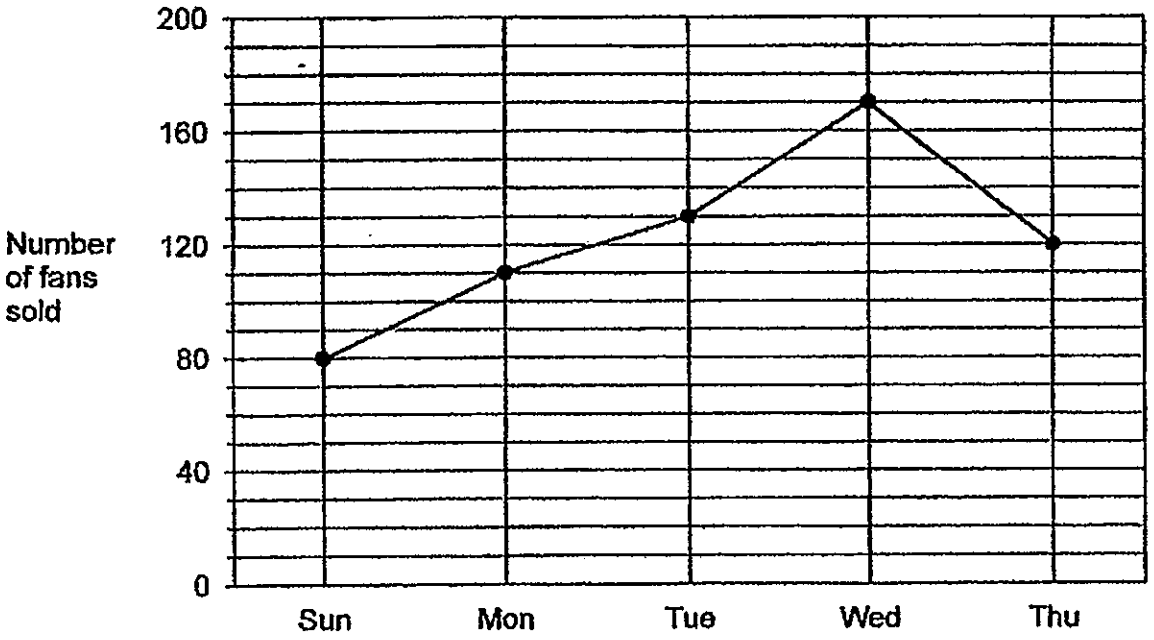
(1) 1.402

(2) 1.420

(3) 14.02

(4) 14.20

5. The line graph below shows the number of fans sold in a shop over 5 days.



Between which 2 days was there the greatest increase in the number of fans sold?

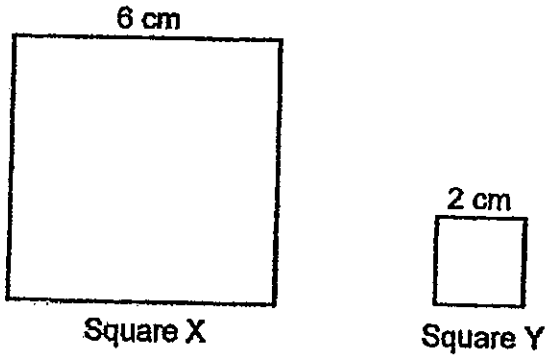
(1) Sunday and Monday

(2) Monday and Tuesday

(3) Tuesday and Wednesday

(4) Wednesday and Thursday

6. The figures below show Square X of side 6 cm and Square Y of side 2 cm. What is the ratio of the area of Square X to the area of Square Y?



(1) 1 : 3

(2) 1 : 9

(3) 3 : 1

(4) 9 : 1

7. 25% of a number is 60. What is the number?

(1) 15

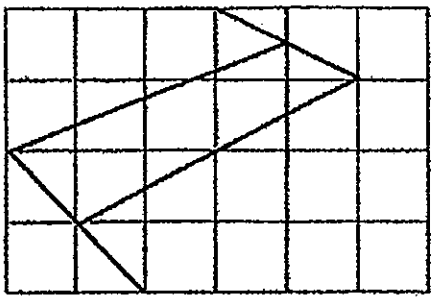
(2) 45

(3) 240

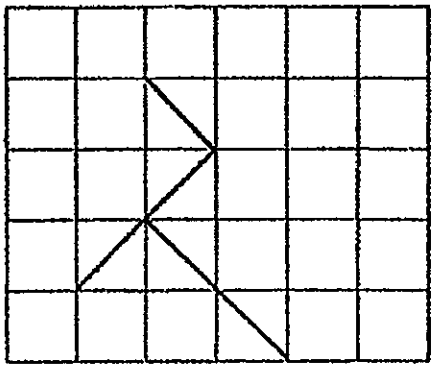
(4) 300

8. Which one of the following shows 2 pairs of perpendicular lines?

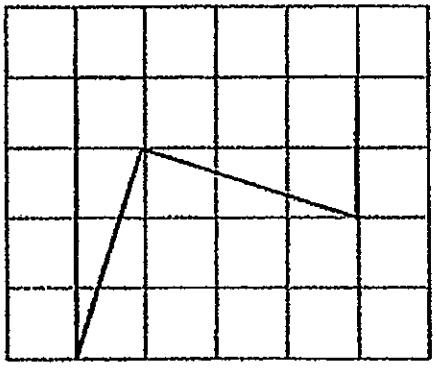
(1)



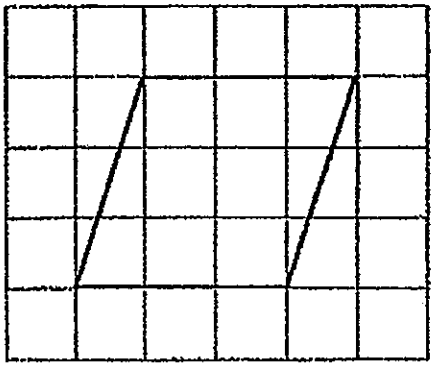
(2)



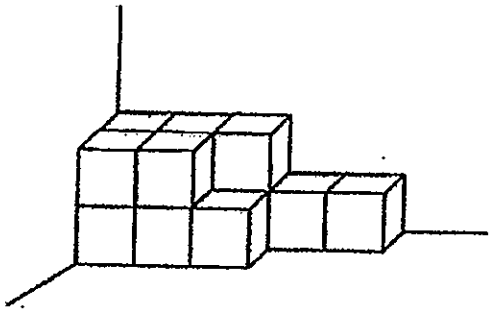
(3)



(4)



9. The solid figure shown below is made up of identical 1-cm cubes. What is the total volume of the solid figure?



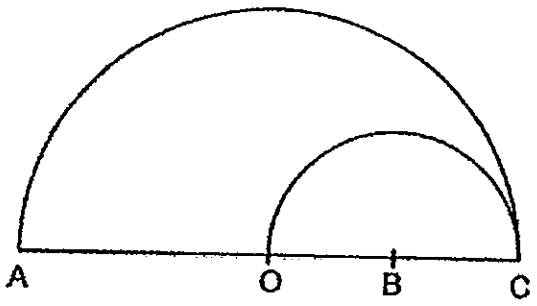
(1) 8 cm^3

(2) 10 cm^3

(3) 12 cm^3

(4) 13 cm^3

10. The figure below is made up of 2 semicircles. O is the centre of the larger semicircle. Which one of the following is the radius of the smaller circle?



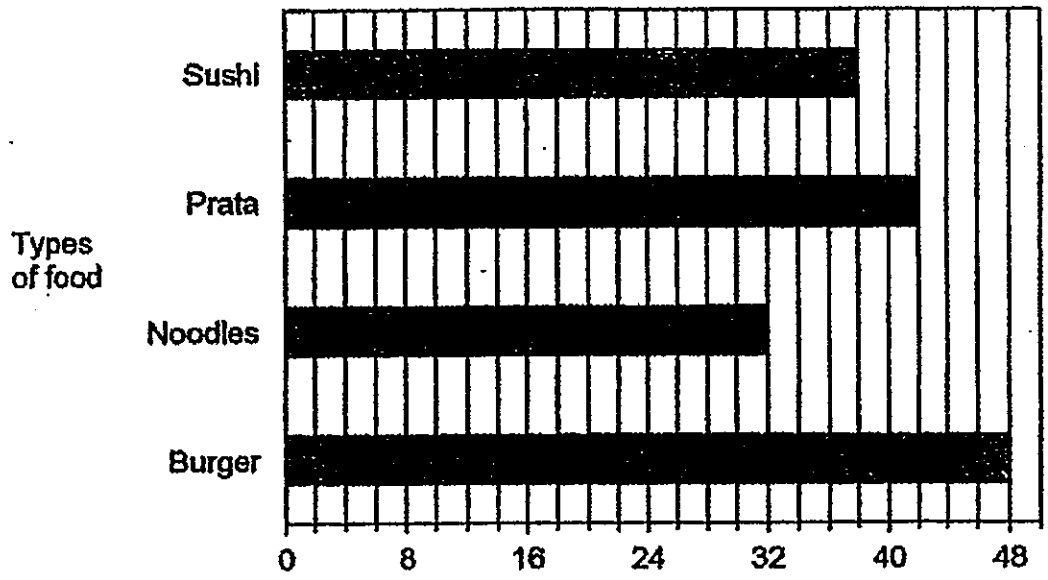
(1) AC

(2) BC

(3) OA

(4) OC

11. The graph below shows the type of food bought by 160 people.



A total of more than 50% of the people bought 2 types of food. What were the 2 types of food?

(1) sushi and burger

(2) sushi and prata

(3) noodles and sushi

(4) noodles and prata

12. Maryanne is 146 cm tall. She is 12 cm taller than Nadia. What is the average height of the 2 girls?

(1) 134 cm

(2) 140 cm

(3) 152 cm

(4) 158 cm

13. Audrey has $\frac{5}{6}$ as much money as Crystal. Audrey gives $\frac{1}{3}$ of her money to Crystal. What is the ratio of the amount of money Audrey has to the amount of money Crystal has in the end?

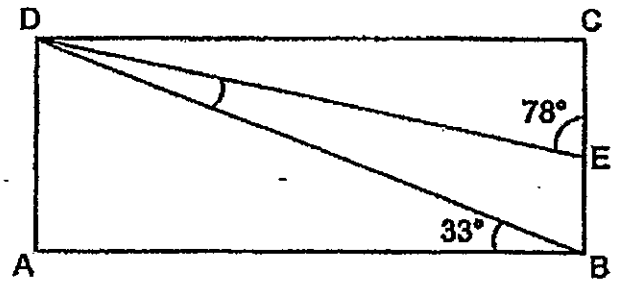
(1) 4 : 7

(2) 5 : 9

(3) 10 : 23

(4) 13 : 11

14. The figure shows a rectangle ABCD. $\angle ABD = 33°$ and $\angle CED = 78°$. Find $\angle BDE$.



(1) 12°

(2) 21°

(3) 33°

(4) 69°

15. A group of children took part in a swimming competition. $\frac{1}{4}$ of the girls and $\frac{1}{8}$ of the boys received gold medals. A total of 25 children received gold medals. $\frac{2}{5}$ of the children who received gold medals were girls. What fraction of the children received the gold medals?

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

(2) $\frac{5}{27}$

(3) $\frac{5}{28}$

(4) $\frac{5}{32}$

End of Booklet A

CHIJ ST NICHOLAS GIRLS' SCHOOL (PRIMARY)

Primary 6 Mathematics

2022 Mid-Year Assessment

Paper 1

Booklet B

10 May 2022

Booklet A	/20
Booklet B	/25
Total (Paper 1)	/45

15 questions
25 marks

Total Time for Booklets A and B: 1 hour

INSTRUCTIONS TO CANDIDATES

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

This booklet consists of 9 printed pages.

Questions **16** to **20** carry **1** mark 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. (5 marks)

Do not write in this space

16. Express 130 min in hours and minutes.

Ans: _____ h _____ min

17. Find the value of $6 - \frac{4}{5}$. Leave your answer as a mixed number in the simplest form.

18. Shanti poured 7182 g of flour equally into 7 identical bottles. How many kilograms of flour were there in each bottle?

Ans: _____ kg

MARKS:

19. The ratio of the number of yellow cones to the number of red cones is 6 : 15. What fraction of the number of red cones is the total number of cones?

Do not write in this space

Ans: _____

20. Patrick invested $18 000 in an investment fund. The bank paid 2% interest at the end of each year. How much interest did he earn at the end of one year?

Ans: $ _____

MARKS:

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)

Do not write in this space

21. What is the sum of all the common factors of 18 and 24?

Ans: _____

22. The table below shows the number of visitors to a park for the past 4 months.

Month	Number of visitors
Jan	4000
Feb	1960
Mar	2100
Apr	2800

In which month were there $\frac{7}{10}$ as many visitors as in April?

Ans: _____

MARKS:

23. Two pencils are placed next to the scale. Find the total length of the two pencils.

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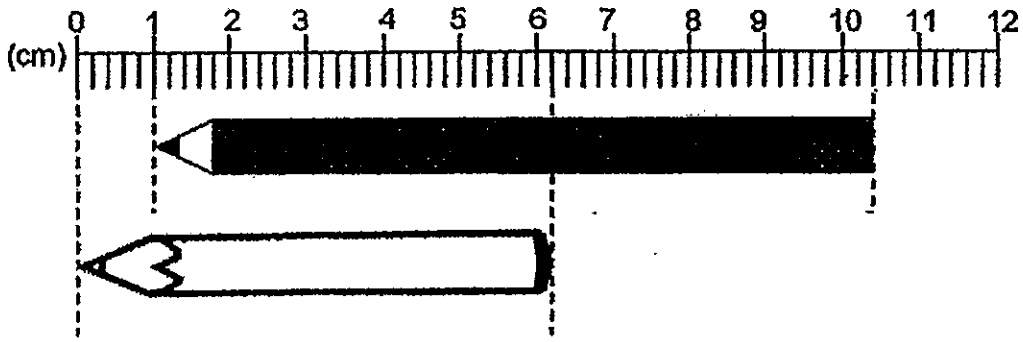
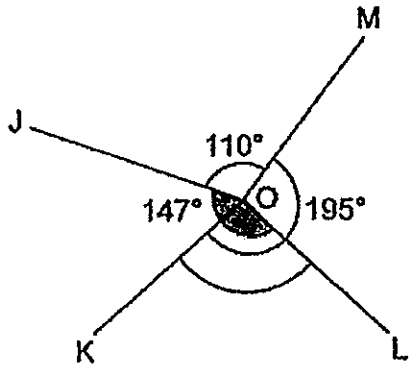


Ans: _____ cm

24. In the figure below, ∠JOL = 147°, ∠JOM = 110° and ∠KOM = 195°. Find ∠KOL.



Ans: _____°

MARKS:

25. Ismail spent 4 days making paper boats for his friends. Each day he managed to make 2 paper boats more than the day before. He made 72 paper boats altogether. How many paper boats did he make on the last day?

Do not write in this space

Ans: _____

26. Devi spent 30% of her money on food and 15% of the remaining money on rent. What percentage of her money did she spend altogether on food and rent? Leave your answer as a decimal.

Ans: _____

MARKS: [ ]

27 In the hall, $\frac{1}{3}$ of the girls who wear watches is equal to $\frac{1}{7}$ of the boys who wear watches. 570 children wear watches. How many children are there in the hall altogether?

Do not write in this space

Ans: _____

28. At a farm, the ratio of the number of hens to the number of ducks was 8 : 3. When half of the number of hens were sold and 13 ducks were added, there were as many hens as ducks. How many ducks were there at the farm in the end?

Ans: _____

MARKS:

29. Yimin had some game cards. The game cards could be put into bags of 4 or 6 with no left over. When the game cards were put into bags of 5, there were 3 game cards left. What was the least number of game cards Yimin had?

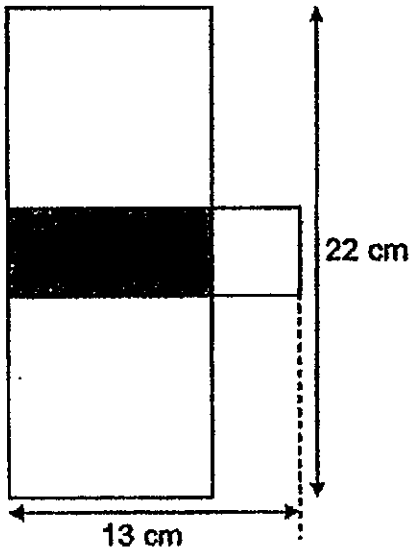
Do not write in this space

Ans: _____

MARKS:

30. The figure below shows a shaded rectangle which is joined to 2 identical big squares and 1 small square. Find the area of the shaded rectangle.

Do not write in this space



Ans: _____ cm^2

End of Booklet B

MARKS:

CHIJ ST NICHOLAS GIRLS' SCHOOL (PRIMARY)

Primary 6 Mathematics

2022 Mid - Year Assessment

Paper 2

10 May 2022

Paper 1	/45
Paper 2	/55
Total Marks	/100

Parent's/Guardian's Signature

Time : 1 hour 30 minutes

INSTRUCTIONS TO CANDIDATES

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

This booklet consists of 14 printed pages.

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. 40 girls shared a container of jelly beans. Each of them took 25 jelly beans. In the end, there were 18 jelly beans left in the container. How many jelly beans were there in the container at first?

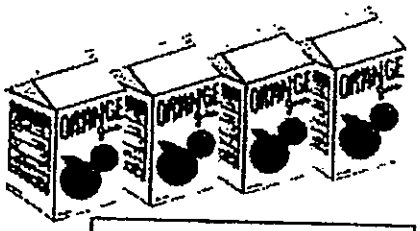
Ans : _____

2. Almaz mixed 0.27 ℓ of syrup with 9 times as much water to make fruit punch. She spilt 1.06 ℓ of fruit punch. How much fruit punch was left?

Ans : _____ ℓ

3. The total cost of 72 packets of orange juice was shared by 3 sisters in the ratio 3 : 1 : 2. What was the cost of the smallest share?

Do not write in this space



Special Offer:
4 packets for $4.55

Ans : $ _____

4. A warehouse had some red and black bags. $\frac{3}{5}$ of the bags were red. $\frac{2}{9}$ of the red bags and $\frac{1}{3}$ of the black bags were sold. Each statement below is either true, false or not possible to tell from the information given. For each statement, put a tick (✓) in the correct column.

Statement	True	False	Not possible to tell
An equal number of red and black bags were sold.			
There were more black bags than red bags left.			

5. The table below shows the rates for booking a taxi.

For the first km	$4.10
For every additional 400 m or part thereof	$0.25
Booking Fee	$3.30

Miss Lee booked a taxi and paid $8.90 for travelling from her house to the office.
Find the greatest possible distance she had travelled.

Do not write in this space

Ans : _____ m

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 the brackets ( ) at the end of each question or part-question. (45 marks)

Do not write in this space

6. A basket contained a total of 204 pink, white and grey buttons. There were 21 more pink buttons than white buttons. There were 6 fewer grey buttons than white buttons. How many white buttons did the basket contain?

Ans : _____ [3]

7. Yasmin and Kelly baked a total of 595 buns. After Yasmin sold $\frac{4}{7}$ of her buns and Kelly sold 218 buns, Kelly had twice as many buns left as Yasmin. How many buns did Yasmin bake?

Ans : _____ [3]

8. Mr Peh wanted to buy 9 floor mats. All the floor mats cost the same. However, he was short of $17. He bought 4 floor mats instead and had $26.50 left. How much money did Mr Peh have?

Do not write in this space

Ans : _____ [3]

9. At first, there were some bottles of cooking oil on the shelf. After 40% of the bottles of cooking oil were removed, another 85 bottles of cooking oil were placed on the shelf. In the end, there were 139 bottles of cooking oil on the shelf. How many bottles of cooking oil were on the shelf at first?

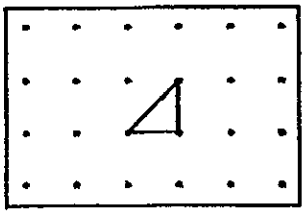
Ans : _____ [3]

10. Janice bought a washing machine from Best Deal Store which was offering a storewide discount of 20%. As a member of the store, she was given an additional 5% discount on the discounted price of the washing machine. Janice paid $1026 for the washing machine. What was the usual price of the washing machine?

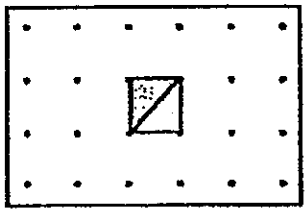
Do not write in this space

Ans : _____ [3]

11. A unit shape in the form of a right-angled triangle is drawn by joining the dots on the square grid below with straight lines.

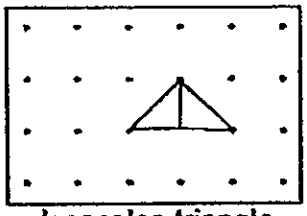


Ellen forms a square by joining two such unit shapes as shown below.



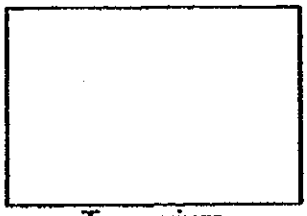
Ellen wants to form an isosceles triangle, a parallelogram and a trapezium. Each figure is to be formed with the **smallest number** of unit shapes. All four figures (including the one above) must be different from one another.

Complete the drawing of the other three figures below by adding one or more unit shapes to the one drawn.



Isosceles triangle

Parallelogram



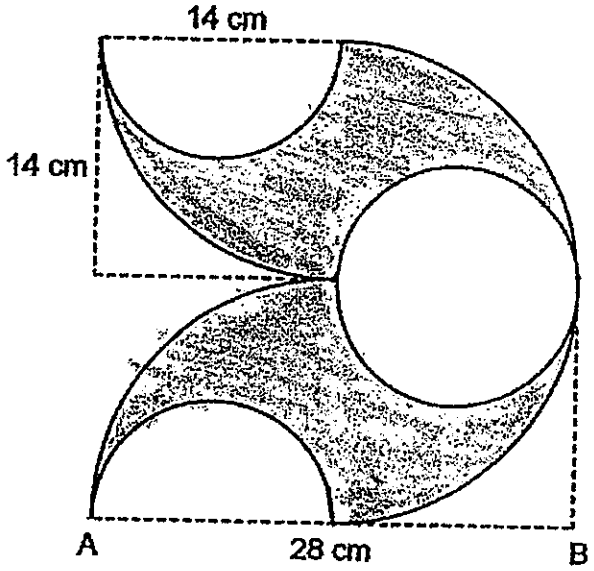
Trapezium

[3]

Do not write in this space

12. The outline of the shaded figure below is formed by a circle, 2 identical semicircles and 4 identical quarter circles. AB = 28 cm. Find the area of the shaded part. (Take $\pi = \frac{22}{7}$)

Do not write in this space



Ans : _____ [4]

13. Mdm Lim sold boxes of muffins at a funfair over 3 days. A large box of muffins cost $12 and a small box of muffins cost $8. The table below shows the number of boxes of muffins she sold over the 3 days.

Do not write in this space

Day	Number of boxes of muffins sold	
	Large	Small
Thursday	21	22
Friday	20	23
Saturday	21	18

(a) On which day did Mdm Lim collect the most amount of money?
What was the amount collected?

(b) From Saturday to Sunday, the total number of boxes of muffins sold decreased to 25. Find the percentage decrease in the sale from Saturday to Sunday. Give your answer correct to 1 decimal place.

Ans : (a) Day _____

Amount _____ [2]

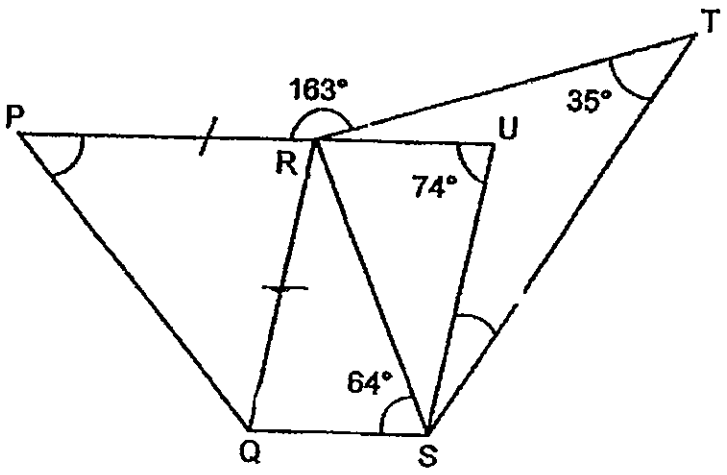
(b) _____ [2]

14. In the figure, QRUS is a parallelogram, RTS is a triangle, PQR is an isosceles triangle and PRU is a straight line. $\angle RTS = 35°$, $\angle RUS = 74°$, $\angle QSR = 64°$ and $\angle PRT = 163°$.

Do not write in this space

(a) Find $\angle QPR$.

(b) Find $\angle UST$.



Ans : (a) _____ [2]

(b) _____ [2]

15. Some small triangles and dots are used to form figures that follow a pattern as shown below.

Do not write in this space

Figure 1

Figure 2

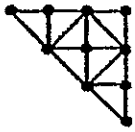


Figure 3

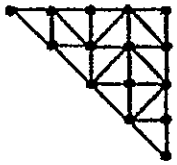


Figure 4

Figure	Number of small triangles	Number of dots
1	1	3
2	4	6
3	9	10
4	16	15
5	25	(a) _____

[1]

The table shows the number of small triangles and dots for the first four figures.

(a) Complete the table above with the number of dots in Figure 5.

(b) Find the number of small triangles in Figure 9.

(c) In which figure will there be 91 dots?

Ans : (b) _____ [2]

(c) Figure _____ [2]

16. Tai, Lenny and Minah folded some paper stars altogether. Tai folded $\frac{1}{3}$ as many paper stars as Lenny. Minah folded $\frac{1}{6}$ of the total number of paper stars that Tai and Lenny folded. Then Minah folded additional paper stars. As a result, she had $\frac{1}{2}$ of the total number of paper stars that Tai and Lenny folded. The three children folded a total of 504 paper stars in the end.

Do not write in this space

(a) How many more paper stars than Tai did Lenny fold?

(b) How many additional paper stars did Minah fold?

Ans : (a)_____ [3]

(b)_____ [2]

17. In Box A, the ratio of the number of English books to the number of Chinese books was 2 : 1. In Box B, the ratio of the number of English books to the number of Chinese books was 3 : 2. There were 5 times as many books in Box B as in Box A.

Do not write in this space

(a) What was the ratio of the number of English books in Box A to the number of English books in Box B? Leave your answer in its simplest form.

(b) When 45 Chinese books were taken out from Box B, the ratio of the number of English books to the number of Chinese books in Box B became 6 : 1. Find the total number of books in Box B at first.

Ans : (a) _____ [2]

(b) _____ [3]

End of Paper 2

SCHOOL : CHIJ PRIMARY SCHOOL
LEVEL : PRIMARY 6
SUBJECT : MATHEMATICS
TERM : 2022 SA1

PAPER 1 BOOKLET A

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

Q 11	Q12	Q13	Q14	Q15
1	2	3	2	4

PAPER 1 BOOKLET B

Q16)	2 h 10 min
Q17)	$6 - \frac{4}{5} = 5\frac{1}{5}$
Q18)	$7182\text{g} = 7.182\text{ kg}$ $\frac{7.182kg}{7} = 1.026\text{ kg}$
Q19)	$\frac{Y:R:Total}{6:15:21}$ $\frac{Red}{Total} = \frac{15}{21}$ $= \frac{5}{7}$
Q20)	$\frac{18000}{100} \text{ x } 2 = 180 \text{ x } 2$ $= 360$

Q21)

18: 1, 2, 3, 6, 9, 18

24: 1, 2, 3, 4, 6, 8, 12, 24

$1 + 2 + 3 + 6 = 12$

Q22)

$\frac{2800}{10} \times 7 = 280 \times 7$

$= 1960$

Ans : February

Q23)

$6.2 + (10.4 - 1.0) = 15.6\text{cm}$

Q24)

$< KOJ = 360° - 195° - 110°$

$= 55°$

$< KOL = 147° - 55°$

$= 92°$

Q25)

D1	2	3	4
u	u + 2	u + 4	u + 6

$2 + 4 + 6 = 12$

$72 - 12 = 60$

$\frac{60}{4} = 15$

$15 + 6 = 21$

Q26)

remaining $\longrightarrow 100\% - 30\% = 70\% = \frac{70}{100}$

rent $\longrightarrow \frac{70}{100} \times 15 = 0.7 \times 15 = 10.5$

total % $\longrightarrow 30\% + 10.5\% = 40.5\%$

Q27)

$2u \longrightarrow 570$

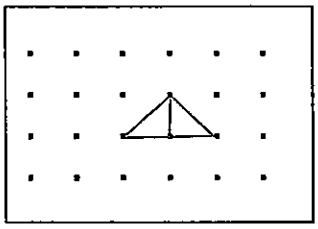
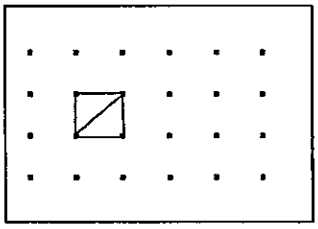
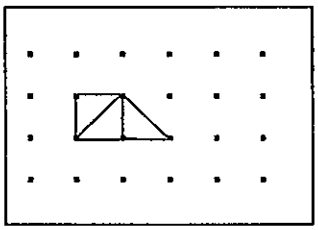
$1u \longrightarrow 570 \div 2 = 285$

$285 \times 10 = 2850$

Q28)	$1u = 13$ $13 \times 4 = 52$
Q29)	$5+3 \quad 10+3 \quad 15+3 \quad 20+3 \quad 25+3$ $30+3 \quad 35+3 \quad 40+3 \quad \underline{45+3=48}$
Q30)	$22-18 = 22-(9 \times 2)$ $= 4$ $13-9=4$ $9 \times 4 = 36cm^2$

PAPER 2

Q1)	$25 \times 40 + 18 = 1018$
Q2)	$0.27 \times 10 = 2.7$ $2.7 - 1.06 = 1.64\ell$
Q3)	$72 \div 6 = 12$ $4.55 \times \frac{12}{4} = \$13.65$
Q4)	<table><tr><td>√</td><td></td><td></td></tr><tr><td></td><td>√</td><td></td></tr></table>
Q5)	$8.90 - 4.10 = 4.80$ $4.80 - 3.30 = 1.50$ $\frac{1.50}{0.25} = 6$ $1 + 0.4 \times 6 = 3.4$ km
Q6)	$204 - 21 + 6 = 189$ $\frac{189}{3} = 63$
Q7)	$595 - 218 = 377$ $377 \div 13 = 29$

	$29 \times 7 = 203$
Q8)	$9u - 17 = \text{money}$ $4u + 26.50 = \text{money}$ $9u - 17 = 4u + 26.50$ $5u = 43.5$ $u = 8.7$ $\text{money} = \$61.30$
Q9)	$139 - 85 = 54$ $\frac{54}{6} \times 10 = 90$
Q10)	$\frac{1026}{95} \times 100 = 1080\ (80\%)$ $\frac{1080}{80} \times 100 = 1350\ (100\%)$ Ans : \$1350
Q11)	 Isosceles Triangle  Parallelogram  Trapezium

Q12)	$\pi (14)^2 = 196\pi$ $\pi (7)^2 (2) = 98\pi$ shaded area $= 196\pi - 98\pi$ $= 98\pi$ $= 98 (\frac{22}{7})$ $= 308cm^2$
Q13)	a) $21 \times \$12 + 22 \times \$8 = \$428$ b) $21 + 18 = 39$ $39 - 25 = 14$ $\frac{14}{39} \times 100\% = 35.9\%$ Ans : (a) Day : Thursday Amount : \$428 (b) 35.9%
Q14)	a) $180° - 74° - 64° = 42°$ $180° - 64° - 42° = 74°$ $\frac{180°-74°}{2} = 53°$ b) $180° - 163° = 17°$ $74° - 17° - 35° = 22°$
Q15)	a) 21 b) $9 \times 9 = 81$ c) $6 : 21 + 7$ $\quad$ $10 : 55 + 11$ $7 : 28 + 8$ $\quad$ $11 : 60 + 12$ $8 : 36 + 9$ $\quad$ $12 : 78 + 13$ $9 : 45 + 10$ Ans : c) Figure 12

Q16)	a) $504 \div 6 = 84$ $84 \text{ X } 2 = 168$ b) $\frac{168\ (2)}{6} = 56$ $84\ (2) - 56 = 112$
Q17)	a) $\frac{A : B}{2 : 9}$ b) $3 : 2$ $6 : 4$) -45 $6 : 1$ $\frac{45}{3} \text{ x } 10 = 150$ Ans : (a) 2 : 9 (b) 150

END