NANYANG PRIMARY SCHOOL

END-OF-YEAR EXAMINATION 2020

PRIMARY 5

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 5 ( )

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)

---

1 In the number 57.86, which digit is in the tenths place?

(1) 5

(2) 6

(3) 7

(4) 8

2 Which of the following is the same as 30 kg 20 g?

(1) 3020 g

(2) 3200 g

(3) 30 020 g

(4) 30 200 g

3 There were 2100 men, 2800 women and 1100 children in a race. What is the ratio of the number of children to the number of women to the number of men? Express your answer in its simplest form.

(1) 11 : 28 : 21

(2) 11 : 21 : 28

(3) 21 : 28 : 11

(4) 28 : 21 : 11

4 Jane paid $5 for 25 paper clips. How much did each paper clip cost?

(1) 5¢

(2) 2¢

(3) 20¢

(4) 50¢

5 There were 200 ribbons in a box. 40 of them were red. What percentage of the ribbons were red?

(1) 5%

(2) 20%

(3) 40%

(4) 80%

6 Empress Primary School has 900 pupils. 25% of the pupils walk to school. How many pupils walk to school?

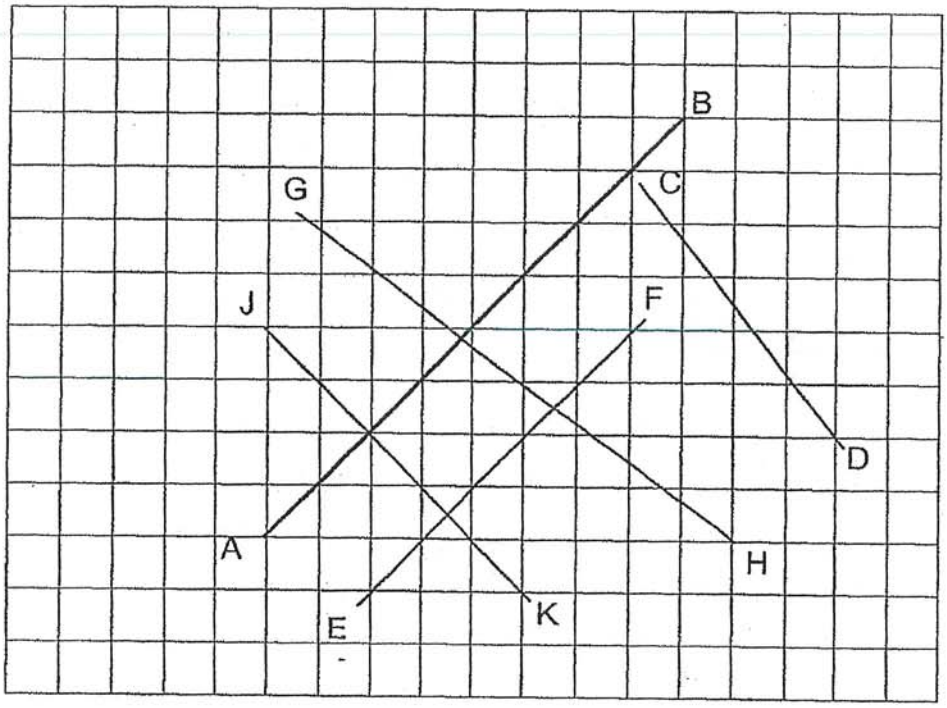
(1) 36

(2) 185

(3) 225

(4) 675

7 Which line in the square grid is perpendicular to AB?



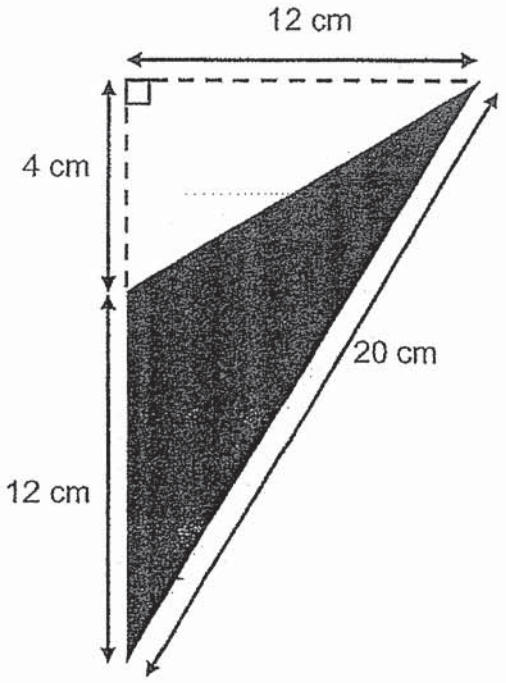
(1) CD

(2) EF

(3) GH

(4) JK

8 Find the area of the shaded triangle below.



(1) 72 cm^2

(2) 96 cm^2

(3) 120 cm^2

(4) 144 cm^2

9 Which one of the following is an equivalent ratio of 16 : 4?

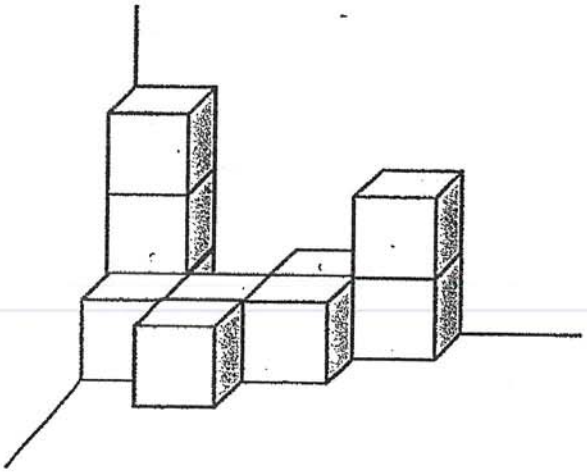
(1) 4 : 16

(2) 8 : 2

(3) 14 : 2

(4) 25 : 5

10 The solid below is made up of 1-cm cubes. What is its volume?



(1) 9 cm^3

(2) 10 cm^3

(3) 11 cm^3

(4) 12 cm^3

11 Arrange the following fractions from the greatest to the smallest.

$$\frac{2}{3} \quad , \quad \frac{5}{12} \quad , \quad \frac{1}{4} \quad , \quad \frac{5}{6}$$

Greatest ..... Smallest

(1) $\frac{5}{12}$, $\frac{5}{6}$, $\frac{2}{3}$, $\frac{1}{4}$

(2) $\frac{2}{3}$, $\frac{1}{4}$, $\frac{5}{6}$, $\frac{5}{12}$

(3) $\frac{1}{4}$, $\frac{5}{12}$, $\frac{2}{3}$, $\frac{5}{6}$

(4) $\frac{5}{6}$, $\frac{2}{3}$, $\frac{5}{12}$, $\frac{1}{4}$

12 The average of the 4 numbers shown below is 16. What is the missing number?

18	19	13	?

(1) 14

(2) 16

(3) 50

(4) 64

13 A machine printed 616 200 books in 200 days. The machine printed an equal number of books each day. How many books did the machine print each day?

(1) 381

(2) 616

(3) 3081

(4) 6162

14 Thana had 72 sweets. She gave $\frac{2}{9}$ of her sweets to Tarita. How many sweets had Thana left?

(1) 8

(2) 16

(3) 56

(4) 70

15 Johnny had 6.4 kg of sugar. He packed all the sugar into 400 packets equally. How much sugar was there in each packet?

(1) 0.016 kg

(2) 0.064 kg

(3) 0.16 kg

(4) 0.64 kg

NANYANG PRIMARY SCHOOL

END-OF-YEAR EXAMINATION 2020

PRIMARY 5

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 5 ( )

Booklet B	/ 25

Please sign and return the examination paper the next day. Any queries should be raised at the same time when returning paper.

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)

16 Find the value of $36 - 4 \times (2 + 4) \div 3$.

Ans: _____

17 A wire was 25 cm long. It was cut into 4 equal pieces. Find the length of each piece of wire. Express your answer as a decimal.

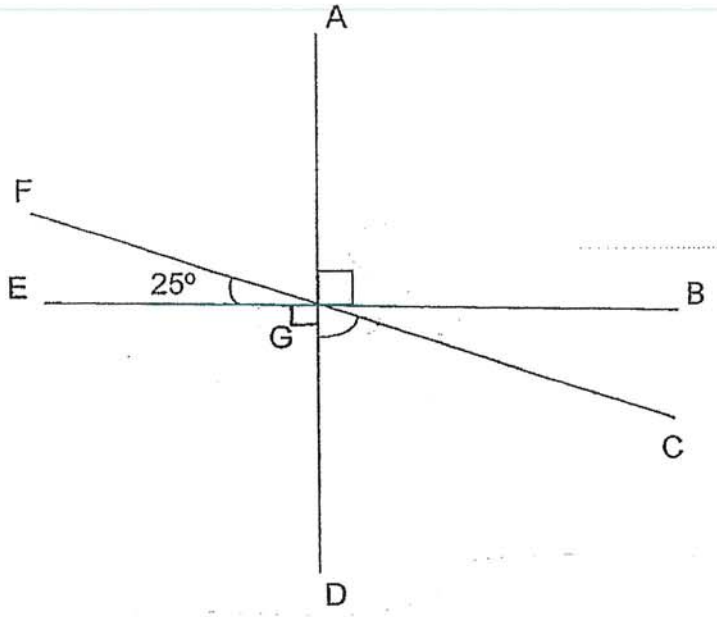
Ans: _____ cm

18 What is the missing number in the box?

$$\boxed{?} : 8 = 27 : 24$$

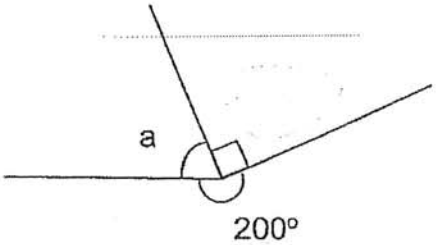
Ans: _____

19 In the figure below, AGD, FGC and EGB are straight lines. ∠AGB is a right angle and ∠EGF = 25°. Find ∠DGC.



Ans: _____ °

20 In the figure below, find ∠a.



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)

---

21 Mikel was left with 62.95 m of rope after cutting away 13.16 m of it. What was the original length of the rope?

Ans: _____ m

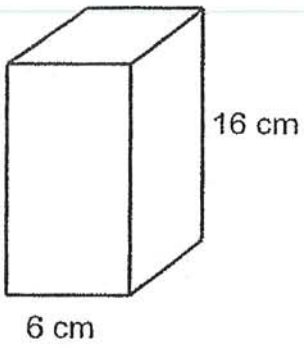
---

22 Mdm Chan had $\frac{9}{10}$ kg of flour. She used $\frac{1}{3}$ of it to bake a cake. How much flour was used to bake the cake?

Ans: _____ kg

---

23 A solid cuboid of height 16 cm has a square base of side 6 cm. What is the volume?



Ans: _____ cm^3

---

24 The table below shows the amount of money collected each day by a stall from Monday to Thursday.

Monday	Tuesday	Wednesday	Thursday
$40	$32	$58	$24

Find the average amount of money collected for the 4 days.

Ans: $ _____

---

25 Ribbon A is 2.45 m long. Ribbon B is 5 times as long as Ribbon A. What is the total length of the two ribbons in metres?

Ans: _____ m

---

26 Xie Xiang had 3935 bottles of orange juice in her warehouse. She sold 180 bottles of them. How many bottles of orange juice were left in the warehouse? Round your answer to the nearest hundred.

Ans: _____

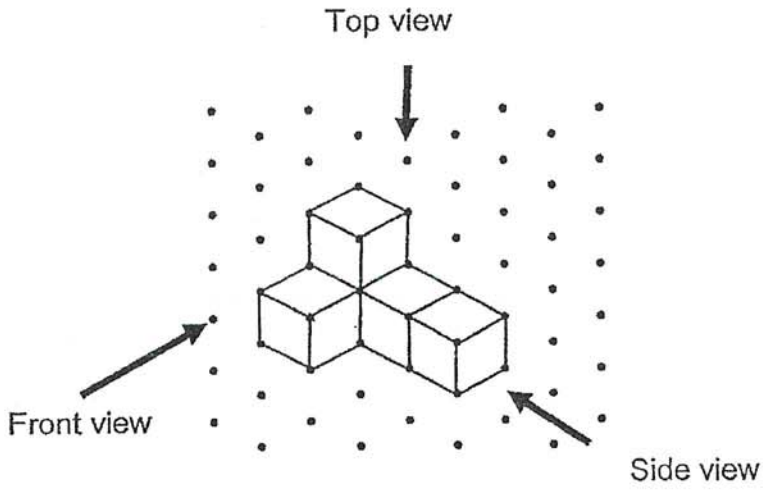
---

27 The price of a mobile phone before GST was $820. Li Ren bought the mobile phone and had to pay an additional 7% GST. What was the amount of GST he had to pay?

Ans: $ _____

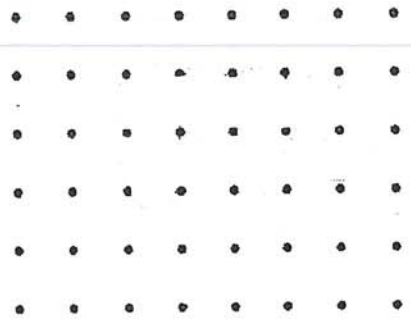
4

28 Alison stacked 5 unit cubes and glued them together to form the solid below.

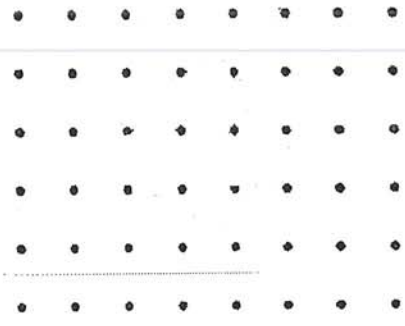


Draw the top view and the side view of the above solid on the grids below.

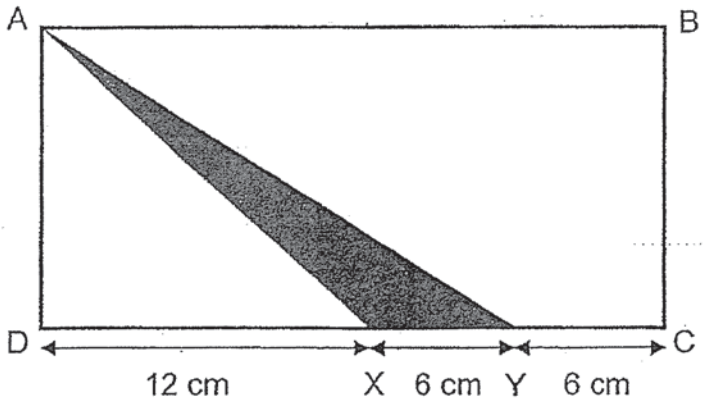
Top View



Side View



29 In the figure below, ABCD is a rectangle. Given that DX = 12 cm, XY = YC = 6 cm, what fraction of the figure is shaded?



Ans: _____

30 The average mass of Bernice, Calissa and Daisy is 53 kg. The average mass of Calissa and Bernice is 54 kg.

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
The total mass of Calissa and Bernice is 108 kg.			
The mass of Daisy is 51 kg.			
Of the three girls, Daisy is the lightest.			

End of Paper

NANYANG PRIMARY SCHOOL

END-OF-YEAR EXAMINATION 2020

PRIMARY 5

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 5 ( )

Parent's Signature: _____

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

Please sign and return the examination paper the next day. Any queries should be raised at the same time when returning paper.

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)

---

1 Vijay ran $3\frac{1}{4}$ km. Triston ran $\frac{2}{5}$ km less than Vijay. How far did Triston run? Give your answer as a mixed number.

Ans: _____ km

---

2 Mdm Lim used $3\frac{1}{3}$ m of cloth to make a cheongsam. She made 4 such cheongsams. How much cloth did she use?

Ans: _____ m

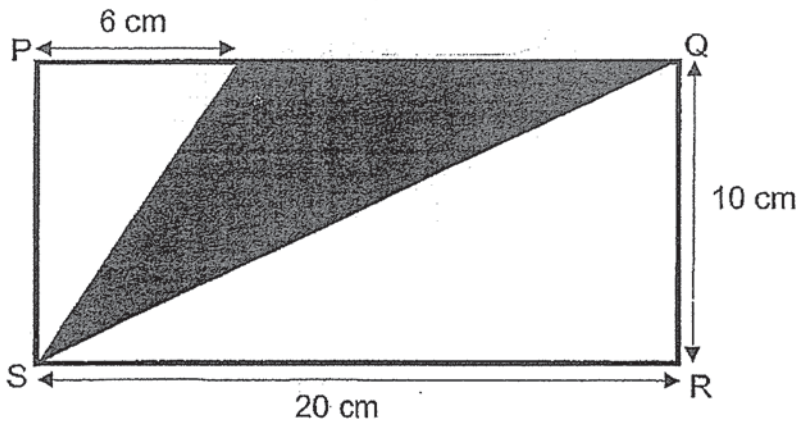
---

3 Rosie bought some books. The total cost of the books was \$81 and the average cost of the books was \$3. How many books did she buy?

Ans: _____

---

4 Given that PQRS is a rectangle, find the area of the shaded triangle.



Ans: _____ cm^2

---

5 James had forgotten his 3-digit passcode for logging into his digital device. However, he remembered that the passcode contained these three digits – 1, 5 and 7. None of the digits was repeated. He tried 751 but it was incorrect. How many more passcodes could he make?

Ans: _____

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)

---

6 The total mass of a box containing 30 identical calendars was 8 kg. After 5 more such calendars were added into the box, the total mass then became 9.16 kg. What was the mass of the empty box?
Give your answer in kilograms.

Ans: _____ [3]

---

7 Two different shops offer the following discounts for the same handbag.

Shop A	Shop B
	
Handbag	Handbag
$250 (Price before discount)	$240 (Price before discount)
20% Discount	$20 Discount

(a) What is the discount for the bag at Shop A?

(b) Which shop sells the bag at a lower price after the discount? What is the discounted price at this shop?

Ans: (a) _____ [1]

(b) Shop: _____

Price: _____ [2]

8 Pei Pei and Vindra have 164 stickers altogether. Pei Pei and Yan have 104 stickers in total. Vindra has 4 times as many stickers as Yan. How many stickers does Pei Pei have?

Ans: _____ [3]

9 The ratio of the number of boys to the number of girls in a sports club was 3 : 5. There were 30 more girls than boys. How many children were there altogether?

Ans: _____ [3]

10 The average height of a group of boys was 123 cm. After one girl whose height was 137 cm joined the group, the average height of the group became 125 cm. Find the number of boys in the group.

Ans: _____ [3]

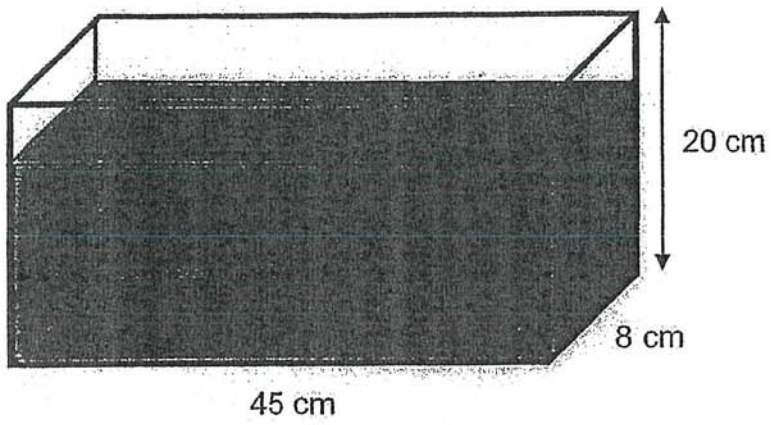
---

11 At a concert, $\frac{3}{8}$ of the adults were men. $\frac{7}{9}$ of the men and $\frac{3}{5}$ of the women did not wear spectacles. There were 528 adults who wore spectacles. How many adults were at the concert?

Ans: _____ [4]

---

12 A rectangular tank measuring 45 cm by 8 cm by 20 cm was $\frac{4}{5}$ – filled with water.



(a) What was the capacity of the tank?

(b) Ahminah poured all the water from the tank into empty identical bottles to the brim. Each bottle had a capacity of 240 cm^3. How many such bottles were completely filled with water?

Ans: (a) _____ [1]

(b) _____ [3]

13 For every 7 chocolate muffins bought, 2 banana muffins would be given free. Ji Eun paid $48 and received a total of 20 chocolate muffins and banana muffins.

Buy 7 chocolate muffins and

get 2 banana muffins free

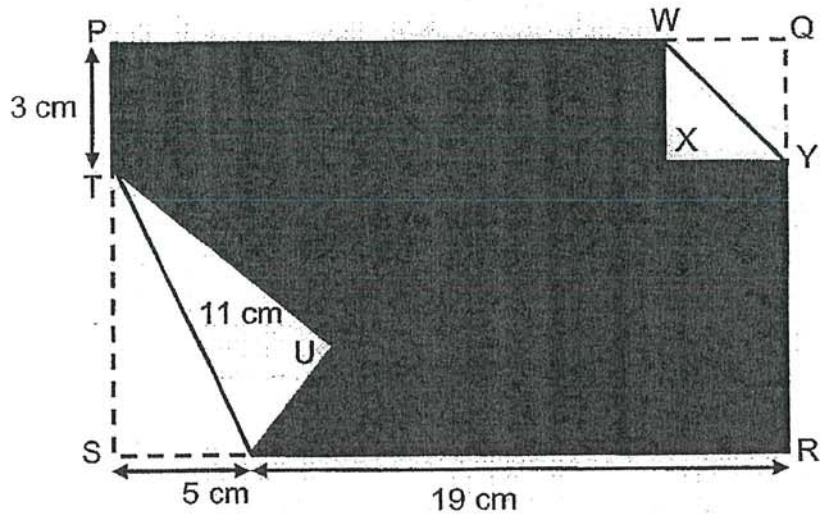
(a) How many banana muffins were given free to Ji Eun?

(b) What was the price of 1 chocolate muffin?

Ans: (a) _____ [2]

(b) _____ [2]

14 In the figure, PQRS is a rectangular piece of paper. Two corners of the paper were folded. PT = WX = XY = 3 cm. TU = 11 cm. Find the area of the shaded part.



Ans: _____ [4]

15 Ye Ji baked some tarts. $\frac{5}{12}$ of them were chocolate tarts and $\frac{3}{7}$ of the remainder were strawberry tarts. The rest were lemon tarts. After eating $\frac{3}{4}$ of the lemon tarts, she was left with 4 lemon tarts.

(a) How many lemon tarts did she bake?

(b) How many strawberry tarts did she bake?

Ans: (a) _____ [2]

(b) _____ [2]

16 The rates of booking a game room is shown in the table below.

Time	Cost per hour
10 a.m. to 2 p.m.	$3.00
2 p.m. to 6 p.m.	$4.50
6 p.m. to 10 p.m.	$6.00

(a) Devi booked a game room from 11 a.m. to 1 p.m. How much did she pay?

(b) Mr Lim booked 3 game rooms from 4 p.m. to 6 p.m. How much did he pay?

(c) Jenny paid $22.50 for booking a game room. Her booking started from 5 p.m. What time did her booking end?

Ans: (a) _____ [1]

(b) _____ [2]

(c) _____ [2]

17 The first four figures of a pattern are shown below.

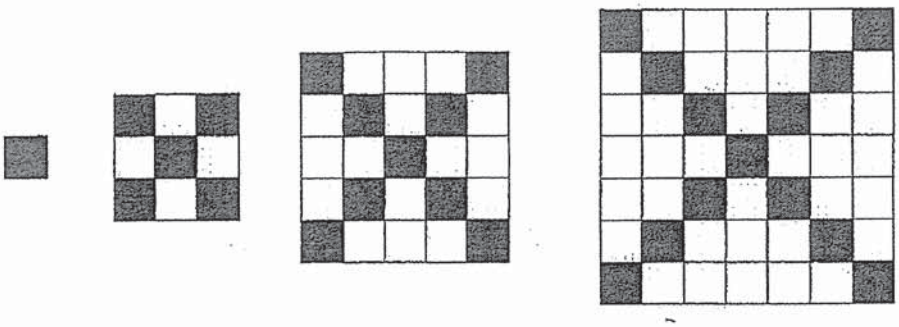


Figure 1 Figure 2 Figure 3 Figure 4

The table below shows the number of black squares and white squares in each figure.

Figure number	**1**	**2**	**3**	**4**
Number of black squares	1	5	9	13
Number of white squares	0	4	16	36

(a) What is the total number of black squares and white squares in figure 5?

(b) How many white squares are there in figure 6?

(c) How many black squares are there in figure 15?

Ans: (a) _____ [1]

(b) _____ [2]

(c) _____ [2]

End of Paper

ANSWER KEY

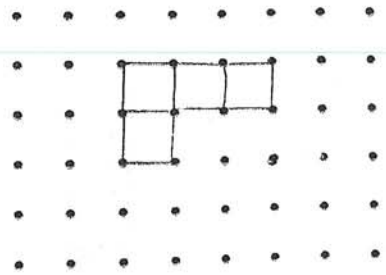
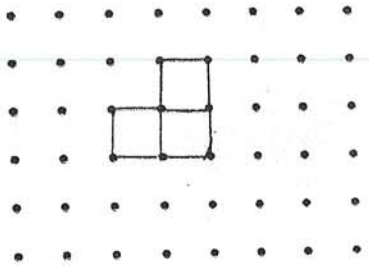
YEAR: 2020
LEVEL: PRIMARY 5
SCHOOL: NANYANG PRIMARY SCHOOL
SUBJECT: MATHEMATICS
TERM: SA2

BOOKLET A

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

BOOKLET B

Q16	28
Q17	6.25
Q18	9
Q19	65°
Q20	70°
Q21	76.11
Q22	0.9kg ÷3=0.3kg $\frac{3}{10}$, $\frac{9}{30}$ kg .
Q23	16×6×6=576
Q24	$\frac{40+32+58+24}{4}$=38.5
Q25	14.7
Q26	3935-180=3755 3755≈3800
Q27	7%×820=$57.40

Q28	Top View  Side View 
Q29	12×24=288 $\frac{1}{2}$×6×12=36 $\frac{36}{288}=\frac{1}{8}$
Q30	The total mass of Calissa and Bernice is 108kg. (True) The mass of Daisy is 51kg. (True) It is not possible to tell if Daisy is the lightest out of the three girls.

BOOKLET C

Q1	$2\frac{17}{20}$
Q2	$13\frac{1}{3}$
Q3	27
Q4	$\frac{1}{2}$×5×14=70cm2
Q5	5
Q6	1160÷5=232 232×35=8120 9160-8120=1040g 1040g≈1.04kg
Q7	a) $50 b) A, $200
Q8	164-104=60 60÷3=20 104-20=84
Q9	30÷2=15 5+3=8

	15×8=120
Q10	123+2=125 137-12=125 12÷2=6
Q11	528÷8=66 66×24=1584
Q12	a) 45×8×20=7200 b) 45×8×20×$\frac{4}{5}$=5760 5760÷240=24
Q13	a) 14+4=18 (2×3 = 4 @) b) 20-18=2 14+2=16 48÷16=3
Q14	$\frac{1}{2}$×3×3×2=9 $\frac{1}{2}$×11×5×2=55 14×24=336 336-9-55=272
Q15	$\frac{4}{7}$×$\frac{1}{4}$=$\frac{1}{7}$ a) 4×4=16 b) 3×4=12
Q16	a) 3×2=6 b) 4.50×2=$9 9×3=$27 c) 22.50- 4.50=18 18÷3=6 9pm
Q17	a) (9+7)×4=64 13+4=17 64+17=81 b) 64+36=100 c) 15-5=10 4×10=40 40+17=57

NANYANG PRIMARY SCHOOL

END-OF-YEAR EXAMINATION 2020

PRIMARY 5

MATHEMATICS PAPER 1 (BOOKLET A)

Total Duration for Booklets A and B: 1 hour

Additional materials: Optical Answer Sheet (OAS)

INSTRUCTIONS TO PUPILS

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5. The use of calculators is NOT allowed.

Name: _____ ( )

Class: Primary 5 ( )

Questions 1 to 10 carry 1 mark each. Questions 11 to 16 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)

1 In the number 87.65, which digit is in the tenths place?

(1) 5
(2) 6
(3) 7
(4) 8

2 Which of the following is the same as 30 kg 20 g?

(1) 3020 g
(2) 3200 g
(3) 30 020 g
(4) 30 200 g

30 kg = 30 000 g
30 000 + 20 = 30 020 (ans)

3 There were 2100 men, 2800 women and 1100 children in a race. What is the ratio of the number of children to the number of women to the number of men? Express your answer in its simplest form.

(1) 11 : 28 : 21
(2) 11 : 21 : 28
(3) 21 : 28 : 11
(4) 28 : 21 : 11

M : W : C
2100 : 2800 : 1100
= 21 : 28 : 11
C : W : M
11 : 28 : 21 (ans)

4 Jane paid $3 for 25 paper clips. How much did each paper clip cost?

(1) 8¢
(2) 2¢
(3) 20¢
(4) 50¢

25 clips → $3
1 clip → $3 ÷ 25
= 300¢ ÷ 25
= 20¢ (ans)

5 There were 200 ribbons in a box. 40 of them were red. What percentage of the ribbons were red?

(1) 5%
(2) 20%
(3) 40%
(4) 80%

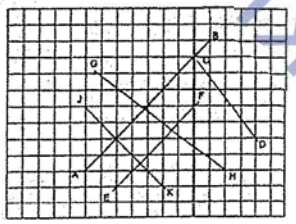
$\frac{40}{200} \times 100\% = 20\%$ (ans)

6 Empress Primary School has 800 pupils. 25% of the pupils walk to school. How many pupils walk to school?

(1) 38
(2) 165
(3) 225
(4) 675

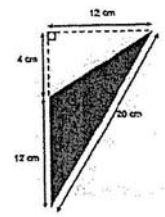
25% × 900
$= \frac{25}{100} \times 900$
= 225 (ans)

7 Which line in the square grid is perpendicular to AB?



(1) CD
(2) EF
(3) GH
(4) JK

8 Find the area of the shaded triangle below.



(1) 72 cm²
(2) 96 cm²
(3) 120 cm²
(4) 144 cm²

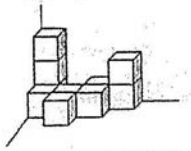
$\frac{1}{2} \times 8 \times 12$
$= \frac{1}{2} \times 12 \times 12$
= 72 (ans)

9 Which one of the following is an equivalent ratio of 16 : 4?

(1) 4 : 16 = 1 : 4
(2) 8 : 2 = 4 : 1
(3) 14 : 2 = 7 : 1
(4) 25 : 5 = 5 : 1

16 : 4 = 4 : 1

10 The solid below is made up of 1-cm cubes. What is its volume?



(1) 9 cm³
(2) 10 cm³
(3) 11 cm³
(4) 12 cm³

10 × (1 × 1 × 1)
= 10 (ans)

11 Arrange the following fractions from the greatest to the smallest.

(P)	(S)	(W)	(T)
$\frac{2}{3}$	$\frac{5}{12}$	$\frac{1}{4}$	$\frac{5}{8}$
$\frac{8}{12}$		$\frac{3}{12}$	$\frac{10}{12}$

Greatest			Smallest
(1)	$\frac{5}{12}$,	$\frac{5}{8}$,	$\frac{2}{3}$, $\frac{1}{4}$
(2)	$\frac{2}{3}$,	$\frac{1}{4}$,	$\frac{5}{8}$, $\frac{5}{12}$
(3)	$\frac{1}{4}$,	$\frac{5}{12}$,	$\frac{2}{3}$, $\frac{5}{8}$
(4)	$\frac{5}{8}$,	$\frac{2}{3}$,	$\frac{8}{12}$, $\frac{1}{4}$

12 The average of the 4 numbers shown below is 16. What is the missing number?

18	19	13	?

$16 \times 4 = 64$

$64 - 18 - 19 - 13$

$= 14$ (ans)

(1) 14
(2) 15
(3) 50
(4) 64

13 A machine printed 616 200 books in 200 days. The machine printed an equal number of books each day. How many books did the machine print each day?

200 days → 616 200

1 day → $616\,200 \div 200$

$= 616200 \div 100 \div 2$

$= 3081$ (ans)

(1) 381
(2) 810
(3) 3081
(4) 6162

14 Thana had 72 sweets. She gave $\frac{2}{9}$ of her sweets to Tarita. How many sweets had Thana left?

$\frac{2}{9} \times \frac{8}{72} = 16$ (given)

$72 - 16 = 56$ (ans)

(1) 8
(2) 16
(3) 56
(4) 70

15 Johnny had 6.4 kg of sugar. He packed all the sugar into 400 packets equally. How much sugar was there in each packet?

(1) 0.016 kg
(2) 0.064 kg
(3) 0.16 kg
(4) 0.64 kg

400 packets → 6.4kg

$= 6400g$

1 packet → $6400g \div 400$

$= 6400g \div 100 \div 4$

$= 16g$

$16g = 0.016kg$ (ans)

9

NANYANG PRIMARY SCHOOL

END-OF-YEAR EXAMINATION 2020

PRIMARY 5

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 5 ( )

Booklet B	/25

Please sign and return the examination paper the next day. Any queries should be raised at the same time when returning paper.

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)

16 Find the value of $36 - 4 \times (2 + 4) \div 3$.

$= 36 - 4 \times 6 \div 3$

$= 36 - 24 \div 3$

$= 36 - 8$

$= 28$ (ans)

Ans: 28

17 A wire was 25 cm long. It was cut into 4 equal pieces. Find the length of each piece of wire. Express your answer as a decimal.

$25 \div 4 = 6.25$ (ans)

$$\begin{array}{r} 6.25 \\ 4\overline{)25.00} \\ 24 \\ \hline 10 \\ 8 \\ \hline 20 \\ 20 \\ \hline 0 \end{array}$$

Ans: 6.25 cm

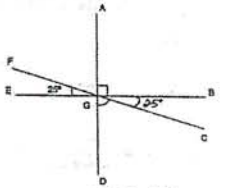
18 What is the missing number in the box?

7 , 8 , 21 , 24 (×3)

$27 \div 3 = 9$ (ans)

Ans: 9

19 In the figure below, AGD, FGC and EGB are straight lines. ∠AGB is a right angle and ∠EGF = 25°. Find ∠DGC.



$\angle DGC = 180° - 90° - 25°$

$= 65°$ (∠ on straight line)

Ans: 65°

20 In the figure below, find $\angle a$.

$360° - 200° - 90° = 70°$ (∠ at a point)

Ans: 70°

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)

21 Mimi was left with 62.65 m of rope after cutting away 13.16 m of it. What was the original length of the rope?

60.95 − 13.16 = 76.11 (ans)

Ans: 76.11 m

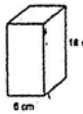
22 Mdm Chen had $\frac{9}{10}$ kg of flour. She used $\frac{1}{3}$ of it to bake a cake. How much flour was used to bake the cake?

$\frac{1}{3} \times \frac{9}{10} = \frac{3}{10}$ (ans)

Ans: $\frac{3}{10}$ kg

3

23 A solid cuboid of height 18 cm has a square base of side 8 cm. What is the volume?



V = L × B × H
= 8 × 8 × 18
= 576 (ans)

Ans: 576 cm³

24 The table below shows the amount of money collected each day by a stall from Monday to Thursday.

Monday	Tuesday	Wednesday	Thursday
$40	$32	$58	$24

Find the average amount of money collected for the 4 days.

40 + 32 + 58 + 24 = 154
154 ÷ 4 = 38.50 (ans)

Ans: $ 38.50

4

25 Ribbon A is 2.45 m long. Ribbon B is 6 times as long as Ribbon A. What is the total length of the two ribbons in metres?

A → 1 unit
B → 5 unit
} 6 units

2.45 × 6 = 14.7 (ans)

Ans: 14.7 m

26 Xie Xiang had 3935 bottles of orange juice in her warehouse. She sold 180 bottles of them. How many bottles of orange juice were left in the warehouse? Round your answer to the nearest hundred.

3935 − 180 = 3755 (must show)

3755 ≈ 3800 (ans)

Ans: 3800

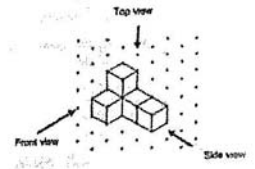
27 The price of a mobile phone before GST was $820. Li Pan bought the mobile phone and had to pay an additional 7% GST. What was the amount of GST he had to pay?

7% × $820
= $57.40

Ans: $ 57.40

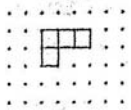
5

28 Alison stacked 8 unit cubes and glued them together to form the solid below.

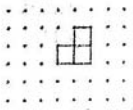


Draw the top view and the side view of the above solid on the grids below.

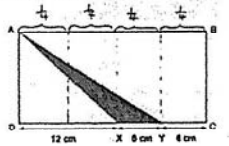
Top View



Side View



29 In the figure below, ABCD is a rectangle. Given that OX = 12 cm, XY = YC = 8 cm, what fraction of the figure is shaded?



Area of shaded Δ = $\frac{1}{2}$ × small rectangle
= $\frac{1}{2} \times \frac{1}{4}$
= $\frac{1}{8}$ (ans)

Ans: $\frac{1}{8}$

7

30 The average mass of Bernice, Calissa and Deery is 53 kg. The average mass of Calissa and Bernice is 54 kg.

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
The total mass of Calissa and Bernice is 108 kg.	✓		
The mass of Deery is 51 kg.	✓		
Of the three girls, Deery is the lightest.			✓

B + C + D = 53 × 3
= 159

D → 159 − 108
= 51

B + C = 54 × 2
= 108

Not enough information for B & C individually to compare

End of Paper

8

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NANYANG PRIMARY SCHOOL

END-OF-YEAR EXAMINATION 2020

PRIMARY 5

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 5 ( )

Parent's Signature: _____

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

Please sign and return the examination paper the next day. Any queries should be raised at the same time when returning paper.

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)

1 Vijay ran $3\frac{1}{4}$ km. Triston ran $\frac{2}{5}$ km less than Vijay. How far did Triston run? Give your answer as a mixed number.

$3\frac{1}{4} - \frac{2}{5} = 2\frac{13}{20}$ (ans)

Ans: $2\frac{13}{20}$ km

2 Mdm Lim used $3\frac{1}{3}$ m of cloth to make a cheongsam. She made 4 such cheongsams. How much cloth did she use?

$3\frac{1}{3} \times 4 = 13\frac{1}{3}$ (ans)

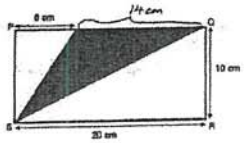
Ans: $13\frac{1}{3}$ m

3 Rosie bought some books. The total cost of the books was $81 and the average cost of the books was $3. How many books did she buy?

$81 \div 3 = 27$ (ans)

Ans: 27

4 Given that PQRS is a rectangle, find the area of the shaded triangle.



$20 - 6 = 14$

$\frac{1}{2} \times 14 \times 10 = 70$ (ans)

Ans: 70 cm^2

5 James had forgotten his 3-digit passcode for logging into his digital device. However, he remembered that the passcode contained these three digits – 1, 5 and 7. None of the digits was repeated. He tried 751 but it was incorrect. How many more passcodes could he make?

157
175
517
571
715

Ans: 5

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)

6 The total mass of a box containing 30 identical calendars was 8 kg. After 5 more such calendars were added into the box, the total mass then became 9.16 kg. What was the mass of the empty box?
Give your answer in kilograms.

$9.16 - 8 = 1.16$ (5 calendars)

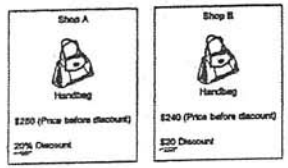
$1.16 \div 5 = 0.232$

$0.232 \times 30 = 6.96$

$8 - 6.96 = 1.04$ (ans)

Ans: 1.04 kg [3]

7 Two different shops offer the following discounts for the same handbag.



(a) What is the discount for the bag at Shop A?

(b) Which shop sells the bag at a lower price after the discount? What is the discounted price at this shop?

a) $20\% \times \$250$
$= \$50$ (ans)

b) A: $\$250 - \$50 = \$200$ (ans)
B: $\$240 - \$20 = \$220$

Ans: (a) $50 [1]
(b) Shop: A
Price: $200 [2]

8 Pei Pei and Vindra have 164 stickers altogether. Pei Pei and Yan have 104 stickers in total. Vindra has 4 times as many stickers as Yan. How many stickers does Pei Pei have?

$P + V \rightarrow 164$
$P + Y \rightarrow 104$ } V more than Y

$164 - 104 = 60$ (diff b/w V and Y)

3 units $\rightarrow 60$
1 unit $\rightarrow 60 \div 3 = 20$ (Y)

$104 - 20 = 84$ (P)
(ans)

Ans: 84 [3]

9 The ratio of the number of boys to the number of girls in a sports club was 3 : 5. There were 30 more girls than boys. How many children were there altogether?

B : G : Diff
3 : 5 : 2

2 units $\rightarrow 30$
1 unit $\rightarrow 30 \div 2$
$= 15$
8 units $\rightarrow 15 \times 8$
$= 120$ (ans)

Ans: 120 [3]

10 The average height of a group of boys was 123 cm. After one girl whose height was 137 cm joined the group, the average height of the group became 125 cm. Find the number of boys in the group.

$125 - 123 = 2$ (↑ average)

$137 - 125 = 12$ (extra height distributed to boys)

$12 \div 2 = 6$ (ans)

Ans: 6 [3]

11 At a concert, $\frac{3}{8}$ of the adults were men. $\frac{7}{9}$ of the men and $\frac{3}{5}$ of the women did not wear spectacles. There were 528 adults who wore spectacles. How many adults were at the concert?

$1 - \frac{3}{8} = \frac{5}{8}$ (women)

$\frac{7}{9} \times \frac{3}{8} = \frac{7}{24}$ (m : No spect)

$\frac{3}{5} \times \frac{5}{8} = \frac{3}{8}$
$= \frac{9}{24}$ (w : no spect)

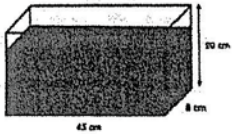
$1 - \frac{7}{24} - \frac{9}{24} = \frac{1}{3}$ (adults : spect)

$\frac{1}{3} \rightarrow 528$

$\frac{3}{3} \rightarrow 528 \times 3$
$= 1584$ (ans)

Ans: 1584 [4]

12 A rectangular tank measuring 45 cm by 8 cm by 20 cm was $\frac{4}{5}$ filled with water.



(a) What was the capacity of the tank?

(b) Abhinesh poured all the water from the tank into empty identical bottles as the brim. Each bottle had a capacity of 240 cm³. How many such bottles were completely filled with water?

a) $45 \times 8 \times 20 = 7200$ (cm³)

b) $\frac{4}{5} \times 7200 = 5760$ (water)

$5760 \div 240 = 24$ (ans)

Ans (a) 7200 cm³ [1]

(b) 24 [2]

7

13 For every 7 chocolate muffins bought, 2 banana muffins would be given free. Ji Eun paid $48 and received a total of 20 chocolate muffins and banana muffins.

Buy 7 chocolate muffins and get 2 banana muffins free

(a) How many banana muffins were given free to Ji Eun?

(b) What was the price of 1 chocolate muffin?

a) $7+2 = 9$ (1 set)

$20 \div 9 = 2$ R 2 ← choc. m

2 sets of 9

$2 \times 2 = 4$ (ans)

b) $20 - 4 = 16$ (choc)

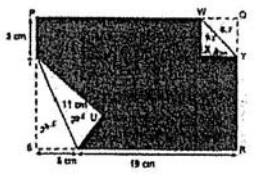
$\$48 \div 16 = \$3$ (ans)

Ans (a) 4 [2]

(b) $3 [2]

8

14 In the figure, PQRS is a rectangular piece of paper. Two corners of the paper were folded. PT = WX = XY = 3 cm. TU = 11 cm. Find the area of the shaded part.



$19 + 5 = 24$

$11 + 3 = 14$

$24 \times 14 = 336$ (area of rect)

$\frac{1}{2} \times 11 \times 5 = 27.5$ } unshaded triangles

$\frac{1}{2} \times 3 \times 3 = 4.5$ }

$336 - 27.5 \times 2 - 4.5 \times 2$

$= 273$ (ans)

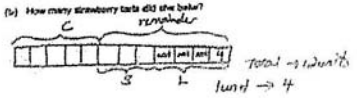
Ans 273 cm² [4]

9

15 Yu Ji baked some tarts. $\frac{5}{12}$ of them were chocolate tarts and $\frac{1}{3}$ of the remainder were strawberry tarts. The rest were lemon tarts. After eating $\frac{3}{4}$ of the lemon tarts, she was left with 4 lemon tarts.

(a) How many lemon tarts did she bake?

(b) How many strawberry tarts did she bake?



Lemon → 4×4

$= 16$ (ans)

Strawberry → 3×4

$= 12$ (ans)

Ans (a) 16 [2]

(b) 12 [2]

10

16 The rates of booking a game room is shown in the table below.

Time	Cost per hour
10 a.m. to 2 p.m.	$3.00
2 p.m. to 6 p.m.	$4.50
6 p.m. to 10 p.m.	$6.00

(a) Devi booked a game room from 11 a.m. to 1 p.m. How much did she pay?

(b) Mr Lim booked 3 game rooms from 4 p.m. to 8 p.m. How much did he pay?

(c) Jenny paid $22.50 for booking a game room. Her booking started from 5 p.m. What time did her booking end?

a) 11 a.m. → (2 h) → 1 p.m.

$\$3 \times 2 = \$6$ (ans)

b) 4 p.m. → (2 h) → 6 p.m.

$\$4.50 \times 2 = \$9$ (1 room)

$\$9 \times 3 = \$27$ (ans)

c) $\$22.50 - \$4.50 = \$18$ (1st hr)

$\$18 \div \$6 = 3$ (hours)

4 h

5 p.m. → 9 p.m.

Ans (a) $6 [1]

(b) $27 [2]

(c) 9 p.m. [2]

11

17 The first four figures of a pattern are shown below.

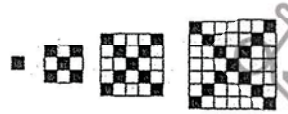


Figure 1 Figure 2 Figure 3 Figure 4

The table below shows the number of black squares and white squares in each figure.

Figure number	1	2	3	4
Number of black squares	1 (1²)	5 (2²+1)	9 (3²+0)	13 (3²+4)
Number of white squares	0	4 (2×2)	16 (4×4)	36 (6×6)
Total	1	9 (3×3)	25 (5×5)	49 (7×7)

(a) What is the total number of black squares and white squares in figure 8?

(b) How many white squares are there in figure 8?

(c) How many black squares are there in figure 15?

A) $9 \times 9 = 81$

b) $10 \times 10 = 100$

c) $15 \times 4 - 5$ ← from figure 0 to 1

$= 57$

Ans (a) 81 [1]

(b) 100 [2]

(c) 57 [2]

End of Paper

12

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9 of 12