NANYANG PRIMARY SCHOOL

END-OF-YEAR EXAMINATION 2021

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)

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1 What is the place value of the digit 3 in 40.035?

(1) tens

(2) ones

(3) tenths

(4) hundredths

2 Which of the following is the same as 76 m?

(1) 760 km

(2) 7 6 km

(3) 0.76 km

(4) 0.076 km

3 Terry had 20 red buttons, 12 orange buttons and 32 purple buttons. What is the ratio of the number of red buttons to the number of orange buttons to the number of purple buttons?

(1) 4: 3: 8

(2) 5: 3: 8

(3) 5: 8: 3

(4) 3: 5: 8

4 Sarah can type 100 words in 1 minute. At this rate, how many words can she type in 1 hour?

(1) 600

(2) 1000

(3) 6000

(4) 10 000

5 There were 5000 participants in a cross country race. 1000 of them were children. What percentage of the participants in the race were children?

(1) 5%

(2) 20%

(3) 80%

(4) 500%

6 There were 840 toy bricks in a box. Jason used 70% of them to build a castle. How many toy bricks did he use to build the castle?

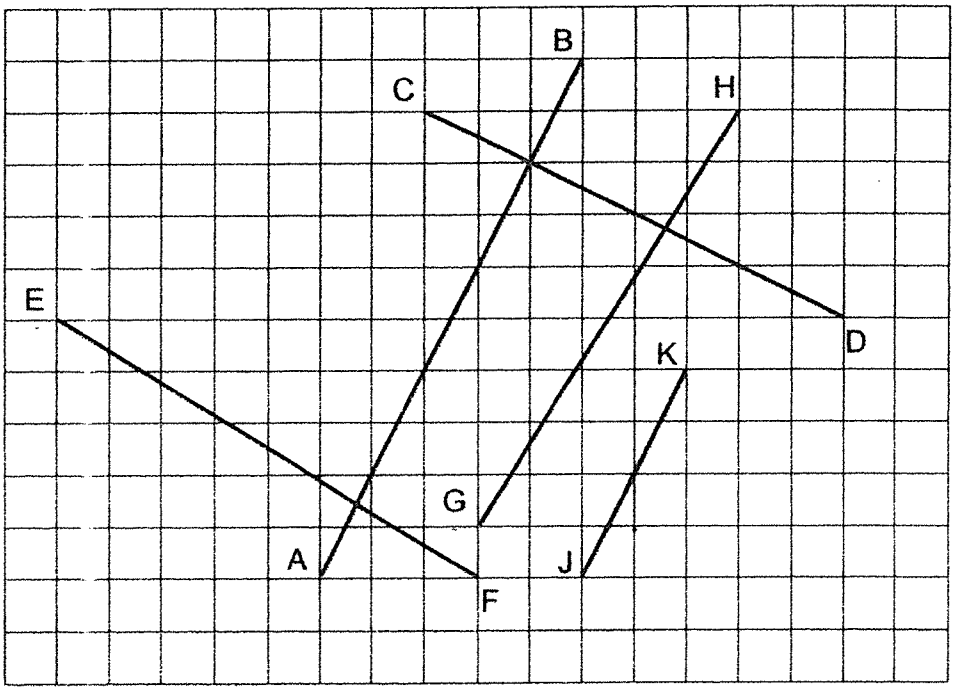
(1) 120

(2) 252

(3) 588

(4) 1200

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



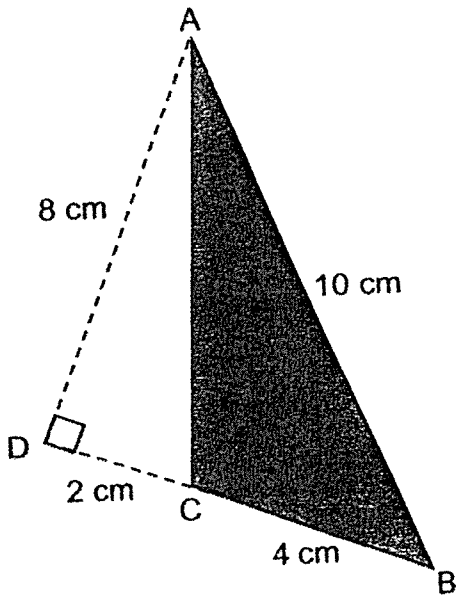
(1) CD

(2) EF

(3) GH

(4) JK

8 What is the area of triangle ABC?



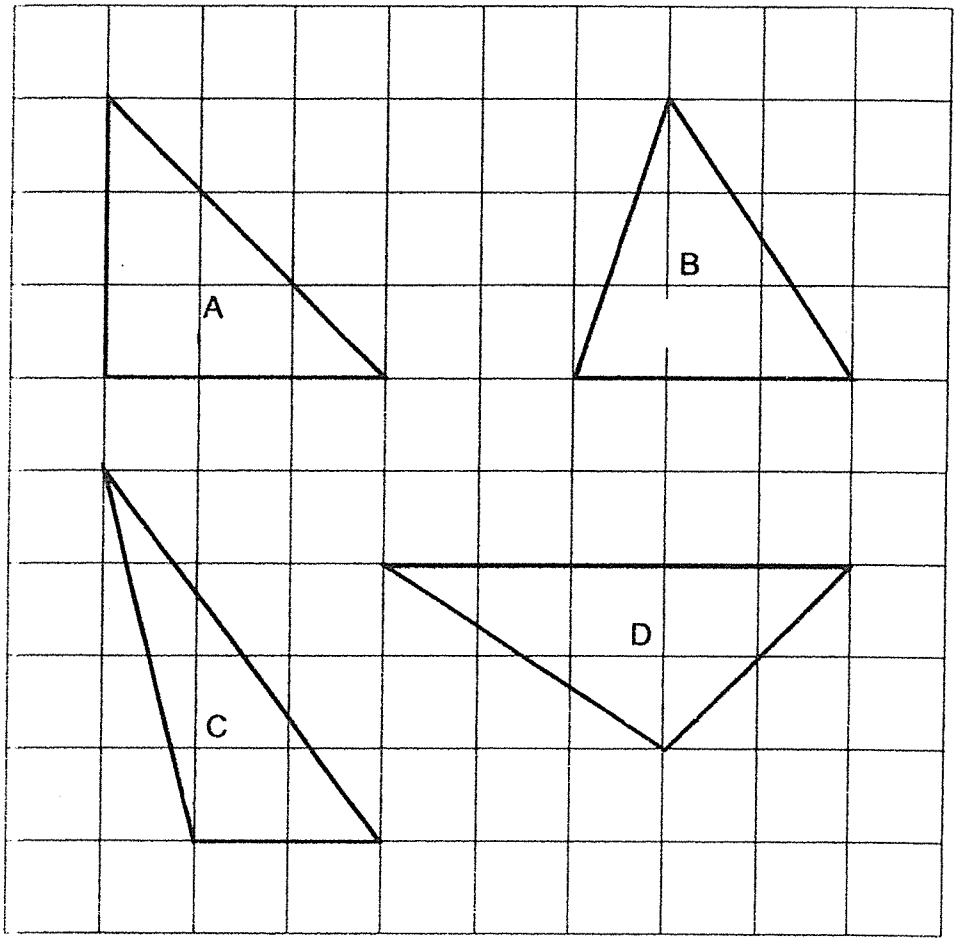
(1) 16 cm^2

(2) 20 cm^2

(3) 24 cm^2

(4) 32 cm^2

9 Four triangles A, B, C and D are drawn on the square grid below. Which triangle is an acute-angled triangle?



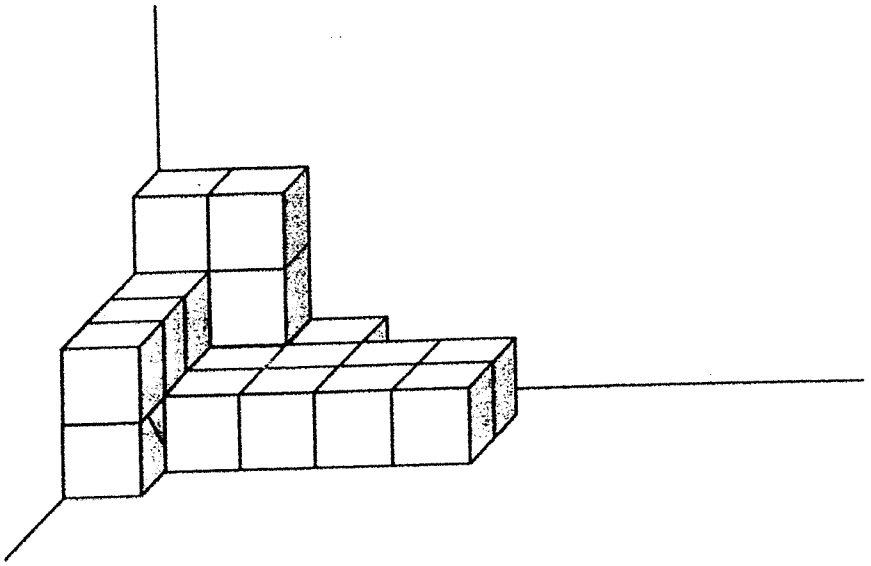
(1) A

(2) B

(3) C

(4) D

10 The solid below is formed by unit cubes. How many unit cubes are there?



(1) 16

(2) 20

(3) 21

(4) 30

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

$$\frac{3}{4} \quad , \quad \frac{3}{11} \quad , \quad \frac{3}{5} \quad , \quad \frac{3}{8}$$

	Largest				Smallest
(1)	$\frac{3}{4}$	, $\frac{3}{11}$	, $\frac{3}{5}$	,	$\frac{3}{8}$
(2)	$\frac{3}{11}$	, $\frac{3}{8}$	, $\frac{3}{5}$	,	$\frac{3}{4}$
(3)	$\frac{3}{4}$	, $\frac{3}{8}$	, $\frac{3}{11}$	,	$\frac{3}{5}$
(4)	$\frac{3}{4}$	, $\frac{3}{5}$	, $\frac{3}{8}$	,	$\frac{3}{11}$

12 The product of two numbers is 99. One of the numbers is 9. Find the average of the two numbers.

(1) 10

(2) 11

(3) 20

(4) 50

13 There were 4700 kg of flour in a factory at first. After 3050 kg of flour were sold, all the remaining flour was packed equally into 300 packets. What was the mass of flour in each packet?

(1) 0.55 kg

(2) 1.65 kg

(3) 5.5 kg

(4) 16.5 kg

14 Vincent had 50 stickers at first. After giving $\frac{3}{10}$ of his stickers to George and 7 stickers to David, he had some stickers left. What fraction of the stickers did Vincent have left?

(1) $\frac{14}{25}$

(2) $\frac{11}{25}$

(3) $\frac{7}{10}$

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

15 John had a roll of wire 10.55 m long. He cut 20 pieces of wire of equal length from the roll to give to his sister. He then had 0.35 m of wire left. What was the length of each piece of wire that he gave to his sister?

(1) 5.1 m

(2) 5.01 m

(3) 0.51 m

(4) 0.501 m

NANYANG PRIMARY SCHOOL

END-OF-YEAR EXAMINATION 2021

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 $45 \div (18 - 9) \times 5 + 8$.

Ans: _____

17 Find the value of $7 \div 8$. Give your answer as a decimal.

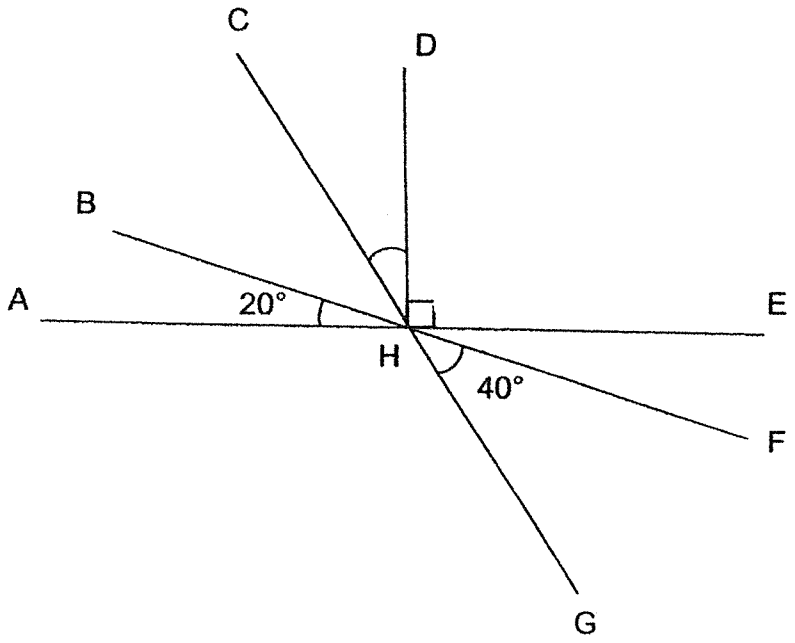
Ans: _____

18 What is the missing number in the box?

$8 : \square = 32 : 48$

Ans: _____

19 In the figure below, AHE, BHF and CHG are straight lines. $\angle DHE = 90°$, $\angle BHA = 20°$ and $\angle GHF = 40°$. Find $\angle CHD$.



Ans: _____°

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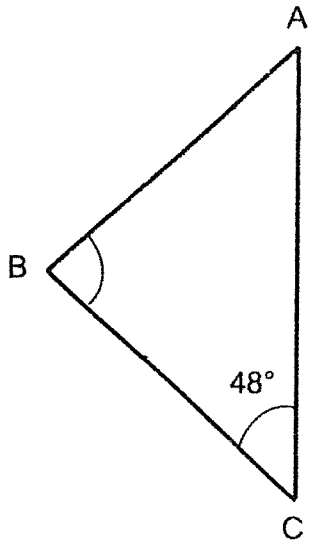
20 ABC is a triangle and AB = BC. Find $\angle ABC$.



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 Joash had a total 250 white marbles and black marbles. He lost 43 white marbles. After that, the ratio of the number of white marbles to black marbles he had was 1 : 2. How many white marbles did Joash have in the end?

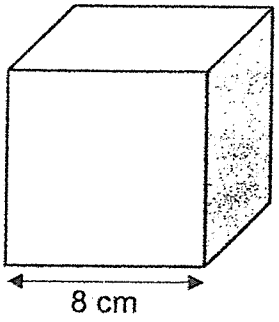
Ans: _____

22 What is the value of $\frac{3}{4} \times \frac{2}{5}$?

Express your answer as a fraction in the simplest form.

Ans: _____

23 What is the volume of the cube shown below?



Ans: _____ cm^3

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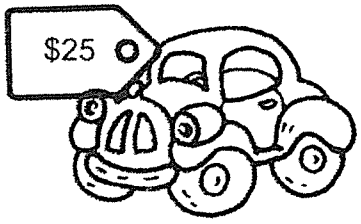
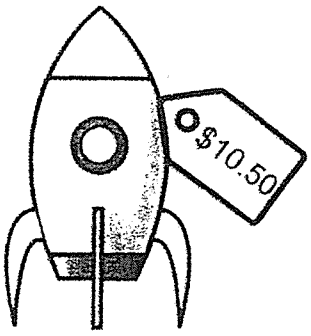
24 Find the average cost of the 3 items below.





Ans: $_____

---

25 The breadth of a rectangle is 4.5 cm. Its length is twice its breadth. What is the area of the rectangle?

Ans: _____ cm^2

---

26 Krishna sold a total of 346 donuts on Saturday and Sunday. On Saturday, he sold 186 donuts. How many donuts did he sell on Sunday? Round your answer to the nearest hundred.

Ans: _____

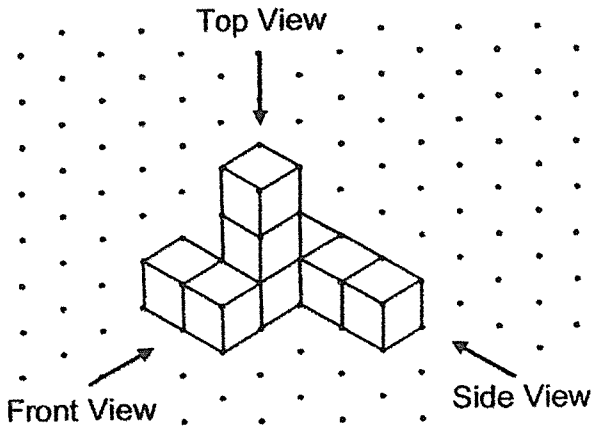
---

27 The price of a laptop is $2000 before GST. What is the price of the laptop after adding 7% GST?

Ans: $_____

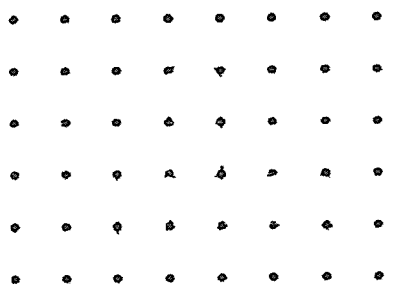
---

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

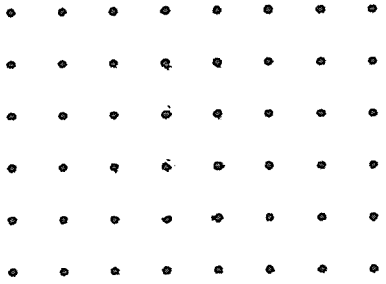


Draw the front view and the side view of the solid on the grids below.

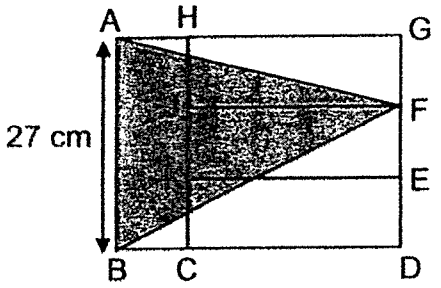
Front View



Side View



29 The figure below is made up of 4 identical rectangles ABCH, CDEK, KEFJ and JFGH. The length of each rectangle is 27 cm. Find the area of the shaded triangle ABF.



Ans: _____ cm^2

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30 The table below shows the marks that Andy scored in his Science, English and Chinese tests. Part of the table is covered by an ink blot.

Test	Marks
Science	
English	7
Chinese	83

The full marks for each test was 100. The average score for his three tests was 76 marks. Find the highest possible marks that Andy scored in his Science test.

Ans: _____

End of Paper

NANYANG PRIMARY SCHOOL

END-OF-YEAR EXAMINATION 2021

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)

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1 Bottle A contains $8\frac{1}{2}$ ℓ of lemonade. Bottle B contains $4\frac{2}{5}$ ℓ of lemonade more than bottle A. How many litres of lemonade are there in bottle A and bottle B altogether?

Ans: _____ ℓ

---

2 A builder used $7\frac{3}{8}$ kg of cement to build a wall. How much cement did he use to build 4 such walls?

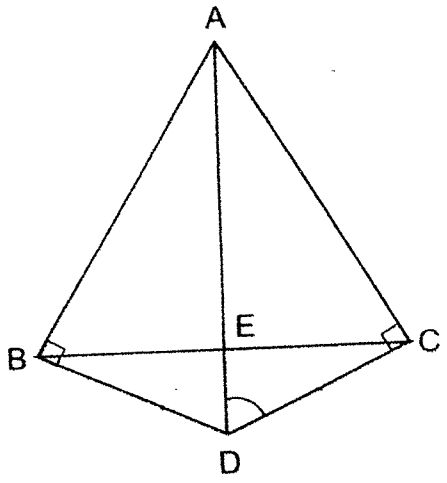
Ans: _____ kg

---

3 Mr Tan bought 5 calculators on Monday. The average cost of these calculators was $38. He bought another calculator at $50 on Tuesday. Find the average cost of all the calculators he bought on these 2 days.

Ans: $_____

4 In the figure below, ABC is an equilateral triangle and BCD is an isosceles triangle with BD = CD. AED is a straight line. AED is perpendicular to BEC. $\angle ACD = \angle ABD = 90°$. Find $\angle ADC$.



Ans: _____°

5 Kelly has $50 to buy a cake and a fruit basket for her mother. The tables below show the types of cakes and the types of fruit baskets available for sale in a shop.

	Price per cake
Blueberry Cake	$30.90
Strawberry Cake	$35.90
Chocolate Cake	$28.90

	Price per fruit basket
Fruit Basket A	$18.80
Fruit Basket B	$28.80
Fruit Basket C	$20.80

How many possible sets can she choose to buy given that each set consists of a cake and a fruit basket?

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)

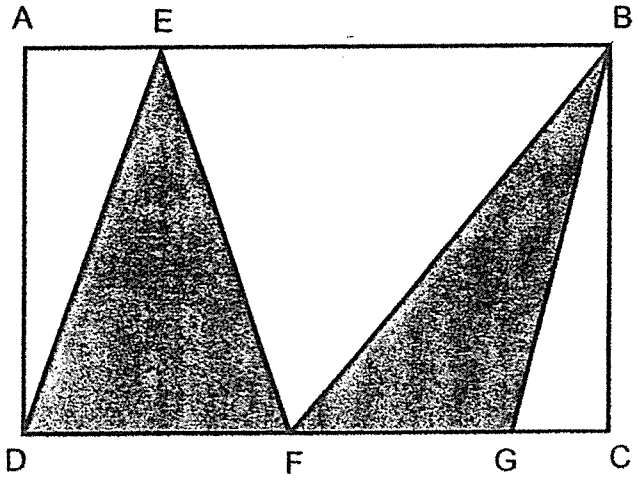
6 Cailing bought 4 oranges and 5 apples for $7.70. John paid $4.30 for 2 such oranges and 3 such apples. What was the cost of each apple?

Ans: _____ [3]

7 A baker baked 180 muffins. 30% of them were chocolate muffins, 50 of them were blueberry muffins and the rest were strawberry muffins. How many more strawberry muffins than chocolate muffins did he bake?

Ans: _____ [3]

8 In the figure below, ABCD is a rectangle. E is a point on line AB. F and G are points on line DC. The total shaded area of triangles DEF and FBG is 112 cm^2. AD = 14 cm and GC = 4 cm. Find the area of rectangle ABCD.



Ans: _____ [3]

9 At a party, the ratio of the number of adults to the number of children is 2 : 3. A total of 420 balloons are given to the adults and the children. Each adult gets 4 balloons and each child gets 2 balloons. How many children are there at the party?

Ans: _____ [3]

10 Five numbers were written on the whiteboard as shown below:

62, 43, 120, 11, 99

(a) Write down the 3 numbers that will give an average of 51.

(b) After John wrote a 2-digit number on the same whiteboard, the new average of the six numbers became a multiple of 3. What was the largest possible 2-digit number written by John?

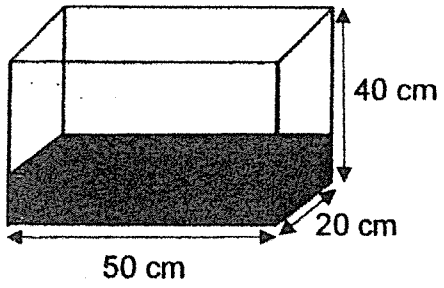
Ans: (a) _____ [1]

(b) _____ [2]

11 Salleh worked $6\frac{2}{3}$ h daily from Monday to Friday. He worked $4\frac{2}{3}$ h on Saturday. He did not work on Sunday. He was paid \$12 per hour. How many such weeks must he work to be paid a total of \$4104?

Ans: _____ [4]

12 A tank measuring 50 cm by 20 cm by 40 cm was $\frac{1}{4}$ filled with water as shown below. After some water was added into the tank, the water level in the tank increased to $\frac{3}{5}$ of the height of the tank. How much water was added into the tank? Express your answer in litres.



Ans: _____ [4]

13 Zhi Ming, John and Raymond had the same amount of money at first. Zhi Ming spent all his money to buy a shirt and 6 pairs of identical socks. John bought 1 such shirt and a pair of trousers and had $72 left. The pair of trousers cost $8 more than each pair of socks.

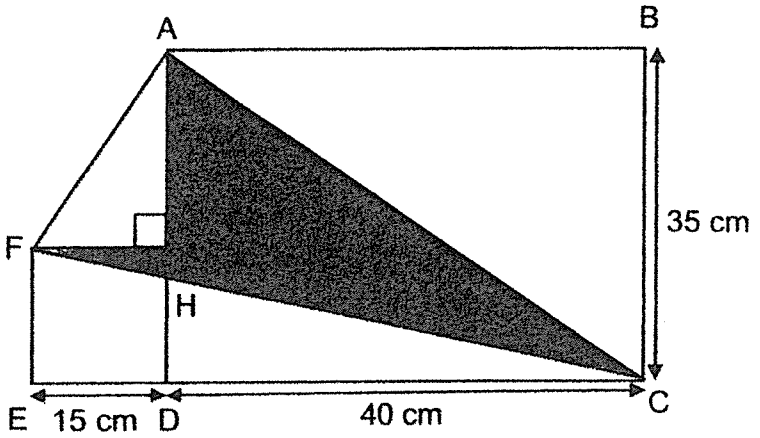
(a) What was the cost of the pair of trousers?

(b) Raymond only bought 1 such shirt. How much money did he have left?

Ans: (a) _____ [3]

(b) _____ [1]

14 In the figure below, ABCD is a rectangle. DEFG is a square and AGF is a right-angled triangle. AGHD, FHC and EDC are straight lines.



(a) Find the area of triangle AGF.

(b) Find the total area of the shaded parts.

Ans: (a) _____ [1]

(b) _____ [3]

15 Mrs Ho had a total of 345 red beads and blue beads at first. She sold half of the red beads and bought another 30 blue beads. In the end, she had an equal number of red and blue beads.

(a) How many red beads did she have at first?

(b) How many more red beads than blue beads did she have at first?

Ans: (a) _____ [3]

(b) _____ [1]

16 The table below shows the bicycle rental charges of two bicycle shops, Anyhow Ride and Superbike.

Bicycle Rental Charges		
	Anyhow Ride	Superbike
For the first hour or part thereof	\$14.40	\$12.00
For every additional $\frac{1}{2}$ hour or part thereof	\$2.20	\$2.80

(a) Suzy rented a bicycle for 3.5 hours from Anyhow Ride. Rashid rented a bicycle for 3.5 hours from Superbike. Who paid more for the rental charge, Suzy or Rashid, and how much more?

(b) Each statement below is either true, false or not possible to tell from the information given. For each statement, put a tick (✓) to indicate your answer.

Statement	True	False	Not possible to tell
Ahmad rented a bicycle from Superbike for 2 hours. He paid \$17.60 for the bicycle rental charge.			
Benny wants to rent a bicycle for more than 2 hours. It is cheaper for him to rent it from Anyhow Ride than from Superbike.			
Jian Hao rented a bicycle from Anyhow Ride. Timothy rented a bicycle from Superbike. Both of them rented their bicycles from 6.30 a.m. to 7.40 a.m. on Monday. Jian Hao paid \$1.80 more than Timothy for the bicycle rental charge.			

[2]

Ans: (a) Name: _____ [1]

_____ more [2]

17 Tisha uses circles and triangles to form figures that follow a pattern as shown below.

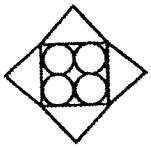


Figure 1

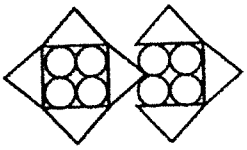


Figure 2

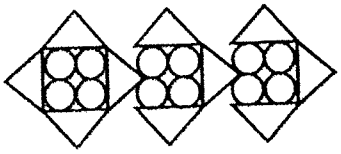


Figure 3

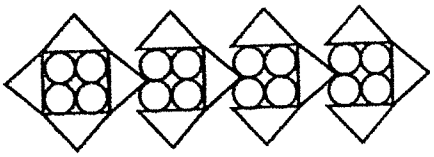


Figure 4

(a) The table below shows the number of circles and triangles for the first four figures. Complete the table for Figure 5.

Figure Number	1	2	3	4	5
Number of circles	4	8	12	16	
Number of triangles	4	7	10	13	
Total number of circles and triangles	8	15	22	29	

[1]

(b) Find the number of triangles in Figure 100.

(c) Find the total number of circles and triangles in Figure 25.

Ans: (b) _____ [2]

(c) _____ [2]

End of Paper

ANSWER KEY

YEAR : 2021
LEVEL : Primary 5
SCHOOL : Nanyang Primary School
SUBJECT : MATHEMATICS
TERM : End-of-Year Examination

BOOKLET A (PAPER 1)

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

BOOKLET B (PAPER 1)

Q16	33	Q17	0.875
Q18	$48 \div 4 = 12$	Q19	$90° + 20° + 40° = 150°$ $180° - 150° = 30°$
Q20	$48 \times 2 = 96°$ $180° - 96° = 84°$	Q21	250-43=207 $207 \div 3 = 69$
Q22	$\frac{3}{4} \times \frac{2}{5} = \frac{3}{10}$	Q23	$8 \times 8 \times 8 = 512$
Q24	25+18.50+10.50=54 $54 \div 3 = 18$	Q25	$4.5 \times 2 = 9$ $9 \times 4.5 = 40.5$
Q26	346-186=160 ≈ 200	Q27	$\frac{107}{100} \times 2000 = 2140$
Q28		Q29	$(27 \div 3) + 27 = 36$ $\frac{1}{2} \times 27 \times 36 = 486$
Q30	$76 \times 3 = 228$ 228-83=145 145-70=75		

PAPER 2

Q1	$8\frac{1}{2} + 4\frac{2}{5} = 12\frac{9}{10}$ $12\frac{9}{10} + 8\frac{1}{2} = 21\frac{4}{10}$; $21\frac{2}{5}$	Q2	$7\frac{3}{8} \times 4 = 29\frac{1}{2}$

Q3	$(38\times5)+50=240$ 5+1=6 $240\div6=40$	Q4	$90°-60°=30°$ $30°\times2=60°$ 180°-60°=120° $120°\div2=60°$
Q5	First set 20.80+28.90=49.70 Second set 18.80+28.90=47.70 Third set 18.80+30.90=49.70 Ans : 3	Q6	$4.30\times2=8.60$ 8.60-7.70=$0.90
Q7	$\frac{30}{100}\times18=54$ 50+54=104 180-104=76 76-54=22	Q8	$\frac{1}{2}\times4\times14=28$ 112+28=140 $140\times2=280$
Q9	90	Q10	(a) $51\times3=153$ 99+11=110 153-110=43 Ans : 99,11,43 (b) 6+43+120+11+99=335 335+97=432 $432\div3=144$ Ans : 97
Q11	$4104\div456=9$	Q12	$50\times20\times40=40000$ $40000\div4=10000$ $(40\div5)\times3=24$ $40\div4=10$ 24-10=14 $50\times20\times14=14000$ $14000cm^3=14\ell$
Q13	(a) 72+8=80 $80\div5=16$ 16+8=$24 (b) $16\times6=\$96$	Q14	(a) 35-15=20 $\frac{1}{2}\times15\times10=150cm^2$ (b) 15+40=55 $\frac{1}{2}\times55\times15=412.5$ $\frac{1}{2}\times40\times35=700$ $(40\times35)+150+(15\times15)=1775$ $1775-(412.5+700+150)=512.5cm^2$

Q15	(a) 345+30=375 $375 \div 3 = 125$ $125 \times 2 = 250$ (b) 125+30=155	Q16	(a) Suzy $14.40+(2.20 \times 5) = 25.40$ Rashid $(2.80 \times 5) + 12 = 26$ 26-25.40=$0.60 Ans: Rashid $0.60 more (b) True,Not possible to tell , True
Q17	(a) 20 16 36 (b) 100-1=99 $100 \times 4 = 400$ 400-99=301 (c) $25 \times 4 = 100$ 25-1=24 100-24=76 100+76=176		

END