



NANYANG PRIMARY SCHOOL

**SECOND SEMESTRAL EXAMINATION
2019**

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 23.149, what does the digit 9 stand for?

- (1) 9 ones
- (2) 9 tenths
- (3) 9 hundredths
- (4) 9 thousandths

2 Which one of the following has the same value as 1506 cm?

- (1) 0.156 m
- (2) 1.506 m
- (3) 15.06 m
- (4) 15.6 m

3 There are 24 apples, 15 oranges and 12 pears in a box. What is the ratio of the number of apples to the number of oranges to the number of pears? Express your answer in its simplest form.

(1) 8 : 5 : 4

(2) 4 : 5 : 8

(3) 12 : 15 : 24

(4) 24 : 15 : 12

4 A printer prints 300 copies of a newsletter in 60 seconds. How many copies of the newsletter does it print in 1 second?

(1) 18 000

(2) 1800

(3) 50

(4) 5

5 There are 120 teachers in a school. 30% of them are men. How many teachers are men?

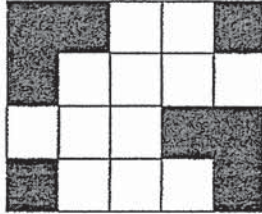
(1) 25

(2) 36

(3) 84

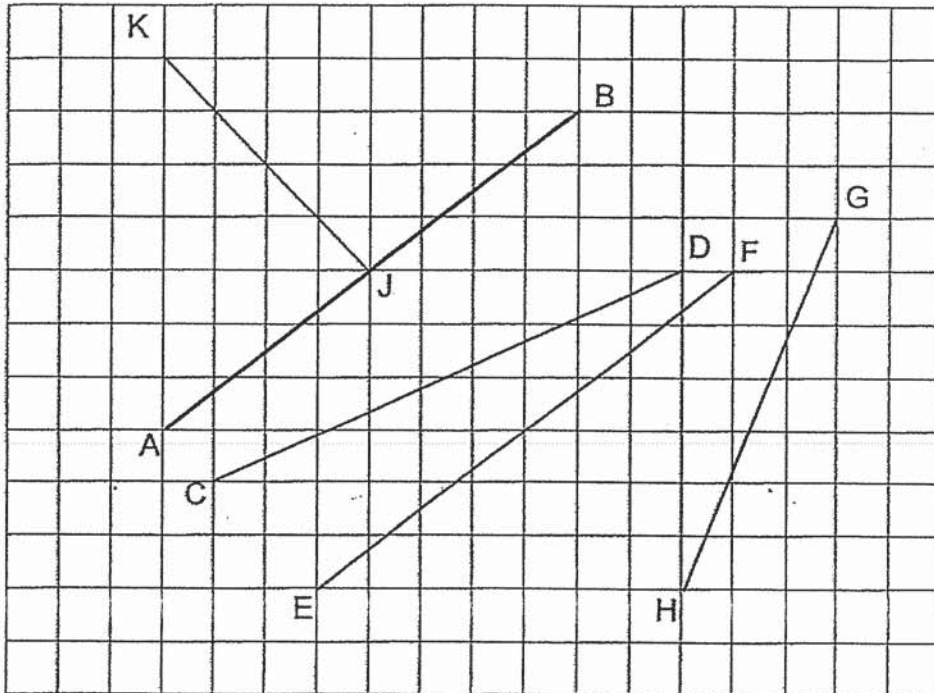
(4) 95

- 6 The figure below is made up of 20 square units. What percentage of the figure is shaded?



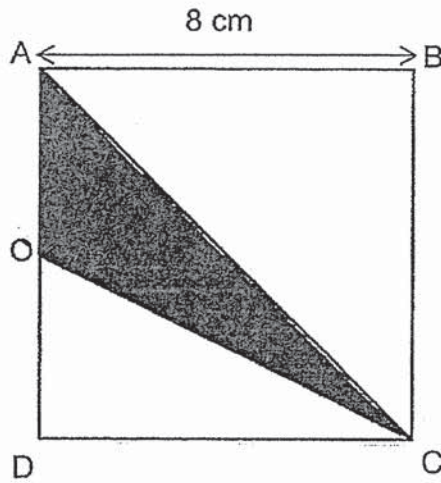
- (1) 8%
- (2) 12%
- (3) 40%
- (4) 60%

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



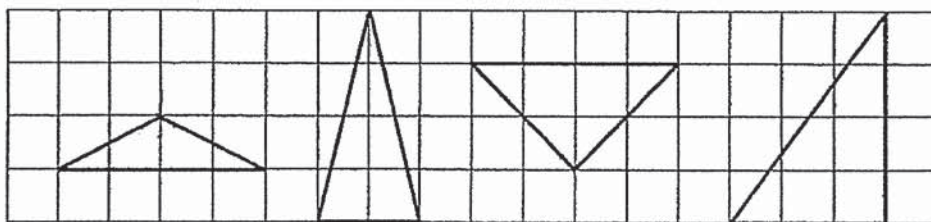
- (1) CD
- (2) EF
- (3) GH
- (4) JK

- 8 In the figure below, ABCD is a square and AOC is a triangle. Given that OA is half the length of AD, find the area of triangle AOC.



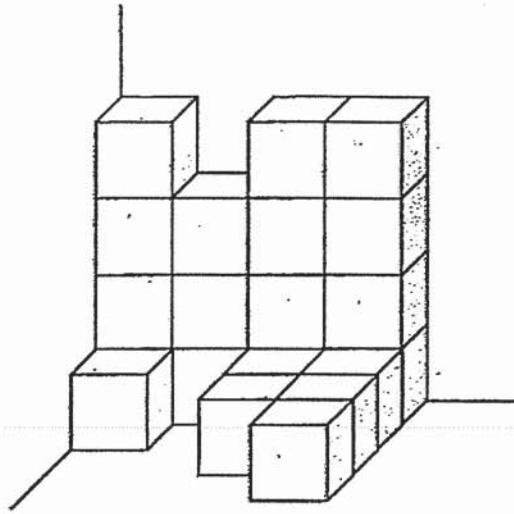
- (1) 16 cm²
- (2) 20 cm²
- (3) 32 cm²
- (4) 64 cm²

- 9 In the square grid below, which triangle is an obtuse-angled triangle?



- (1)
- (2)
- (3)
- (4)

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



- (1) 18
- (2) 19
- (3) 20
- (4) 21

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

$$\frac{1}{3}, \quad \frac{1}{9}, \quad \frac{1}{5}, \quad \frac{1}{7}$$

(1) $\frac{1}{3}, \frac{1}{9}, \frac{1}{5}, \frac{1}{7}$

(2) $\frac{1}{9}, \frac{1}{7}, \frac{1}{5}, \frac{1}{3}$

(3) $\frac{1}{3}, \frac{1}{5}, \frac{1}{7}, \frac{1}{9}$

(4) $\frac{1}{3}, \frac{1}{7}, \frac{1}{9}, \frac{1}{5}$

- 12 Study the four number cards shown below. Find the average of the 4 numbers shown on the cards.

24

16

17

3

- (1) 15
(2) 16
(3) 29
(4) 60

13 Mrs Nathan cooked 0.45 kg of rice each day. How many kilograms of rice did she cook in 30 days?

(1) 4.5 kg

(2) 12.5 kg

(3) 13.5 kg

(4) 15 kg

14 Jake had 30 marbles. He gave 8 marbles to George and 12 marbles to David. What fraction of the marbles did Jake have left?

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

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

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

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

15 Julian bought 20 identical bags at a total cost of \$580. How much did he need to pay for 50 such bags?

- (1) \$29
- (2) \$1450
- (3) \$14 500
- (4) \$29 000



NANYANG PRIMARY SCHOOL

**SECOND SEMESTRAL EXAMINATION
2019**

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

Any query on marks awarded should be raised by 1st November 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)

16 Find the value of $42 \div 6 \times (30 - 18) + 12$.

Ans: _____

17 Find the value of $1203 \div 4$.
Express your answer as a decimal.

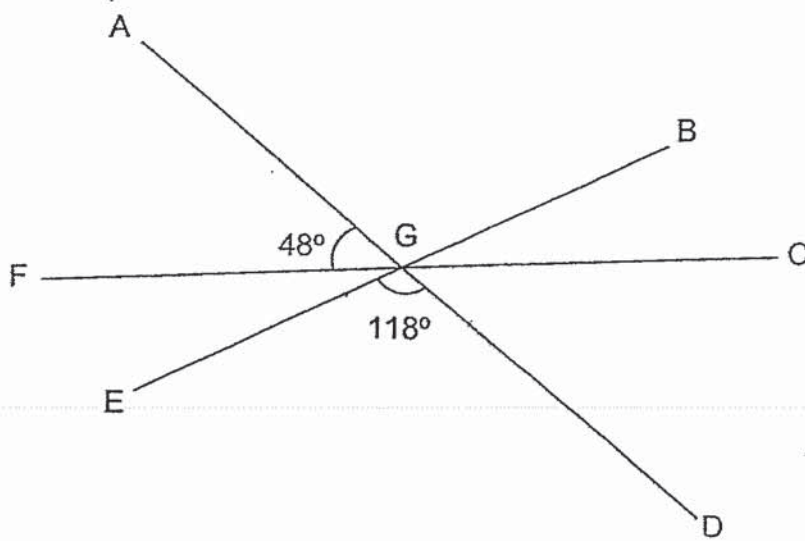
Ans: _____

18 What is the missing number in the box?

$$2 : 5 = 8 : \boxed{?}$$

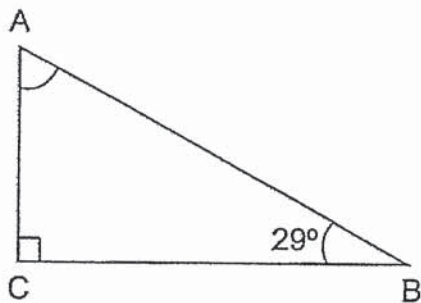
Ans: _____

- 19 In the figure below, AGD, CGF and BGE are straight lines. Find $\angle BGC$.



Ans: _____^o

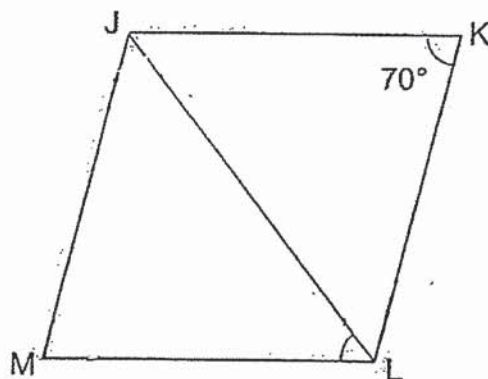
- 20 In the figure below, ABC is a right-angled triangle. Find $\angle BAC$:



Ans: _____^o

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 In the figure, JKLM is a rhombus. $\angle JKL = 70^\circ$. Find $\angle JLM$.

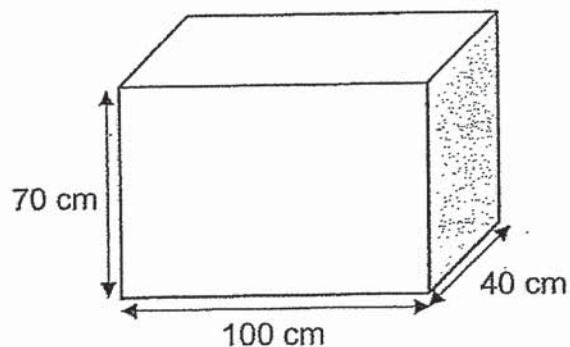


Ans: _____ °

- 22 Mrs Livia prepared $\frac{2}{3}$ ℓ of apple juice for her son. Her son drank $\frac{3}{5}$ of it. How much apple juice did her son drink?

Ans: _____ ℓ

23 What is the volume of the cuboid shown below?



Ans: _____ cm^3

24 Find the average of 362 ml, 270 ml and 367 ml.

Ans: _____ ml

25 Ji Sung deposits \$5000 into a bank for one year. The interest rate is 3% per year. How much will he have in the bank account at the end of one year?

Ans: \$ _____

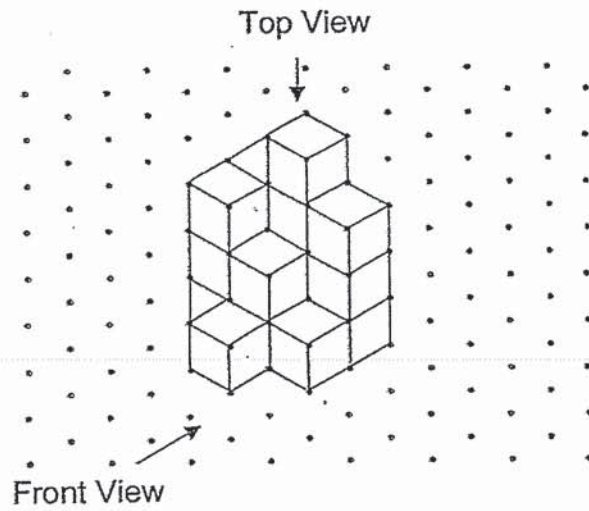
- 26 The number of boys in a school was 1830 in January. The number of boys in the school was increased by 85 in February. How many boys were there in the school in February? Round your answer to the nearest ten.

Ans: _____

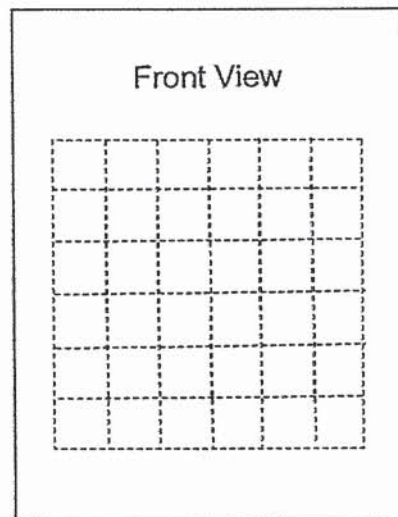
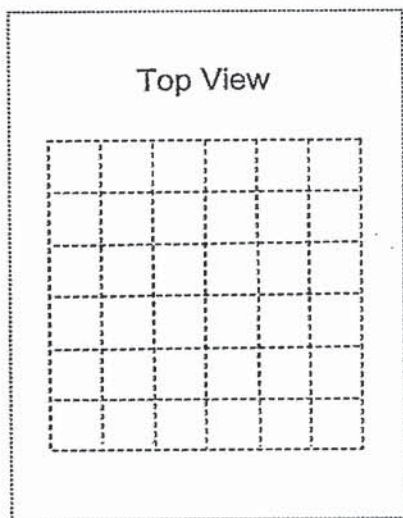
- 27 Tom and George had \$5.50 and \$15.50 respectively at first. They were then each given an equal amount of money. George had twice as much money as Tom in the end. How much money did each boy receive?

Ans: \$ _____

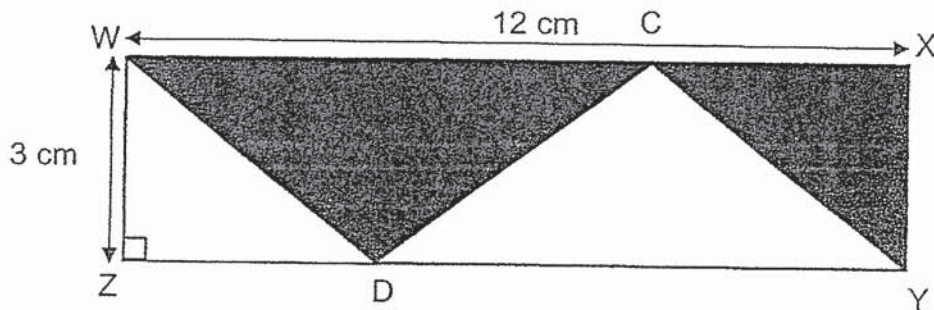
28 Study the solid below.



Draw the top view and the front view of the solid in the grids provided.





- 29 In the figure below, $WXYZ$ is a rectangle. WCX and ZDY are straight lines. $WZ = 3$ cm and $WX = 12$ cm. Find the total area of the shaded parts.



Ans: _____ cm^2

- 30 The table below shows the heights of Aishah, Deepa and Ruyi. The average height of these children is 133 cm. The digit in the ones place of Aishah's height and the digit in the tens place of Ruyi's height are covered by ink blots.

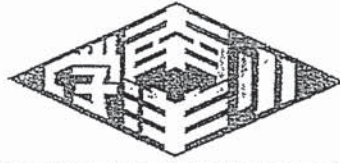
Name	Height (cm)
Aishah	14  9
Deepa	1 2 8
Ruyi	1  2 2

- (a) What is the digit in the ones place of Aishah's height?
- (b) What is the digit in the tens place of Ruyi's height?

Ans: (a) _____

(b) _____

End of Paper



NANYANG PRIMARY SCHOOL

**SECOND SEMESTRAL EXAMINATION
2019**

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

Any query on marks awarded should be raised by 1st November 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)

- 1 On Monday, Kate used $4\frac{1}{8}$ kg of flour to bake a cake. On Tuesday, she used $5\frac{2}{7}$ kg of flour to make some buns. What was the total amount of flour Kate used on both days?

Ans: _____ kg

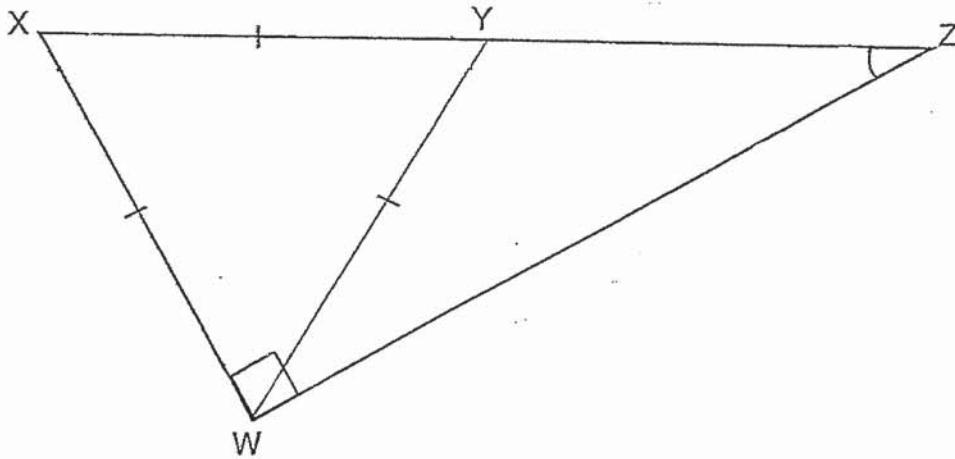
- 2 A container can hold $8\frac{3}{5}$ litres of water when filled to the brim. How much water can 4 such containers hold when they are filled to the brim?

Ans: _____ l

- 3 Mrs Wong bought some files. The total cost of the files was \$252. The average cost of the files was \$4. How many files did she buy?

Ans: _____

- 4 In the figure below, WXZ is a right-angled triangle. WXY is an equilateral triangle. Find $\angle XZW$.



Ans: _____ °

- 5 Kangyi formed numbers with 2 decimal places using the following digits 1, 2 and 9. He used the digits once only for each number formed. At most, how many numbers could be formed by Kangyi?

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 At a bakery, Rong Ying paid a total of \$12.90 for a cake and 2 tarts. The cake was \$2.70 more than each tart. How much did Rong Ying pay for the cake?

Ans: _____ [3]

- 7 At a sale, a shop sold candy bars at the prices as shown below.

Candy Bars for Sale!

Usual Price: \$4 each

1st candy bar at \$4.
Every additional candy bar at 15% discount.

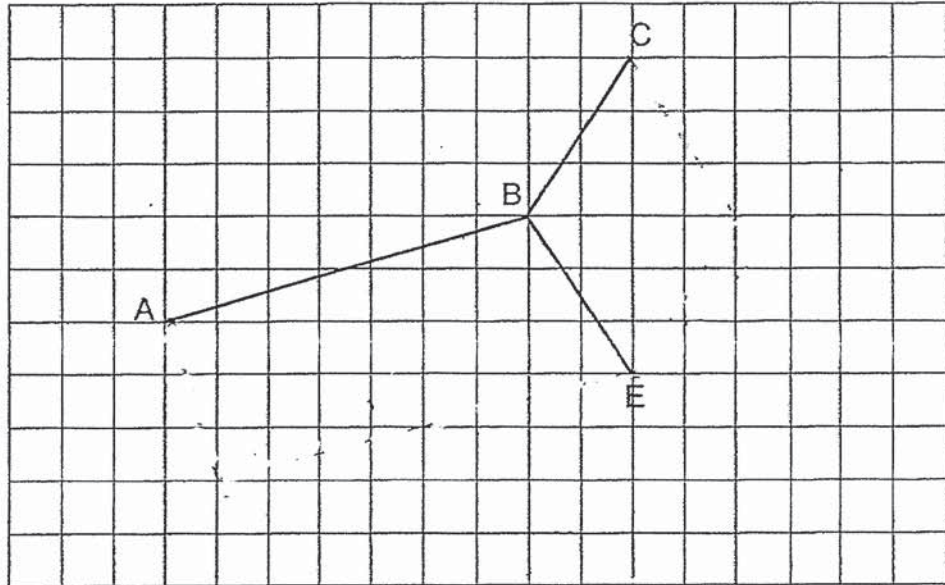
Shin Hye bought 4 candy bars at the sale. How much did she pay?

Ans: _____ [3]

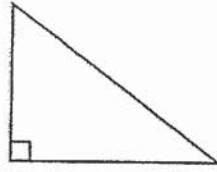
8 In the square grid below, AB, BC and BE are straight lines.

(a) CB and BE form two sides of a rhombus. Complete the drawing of the rhombus. [1]

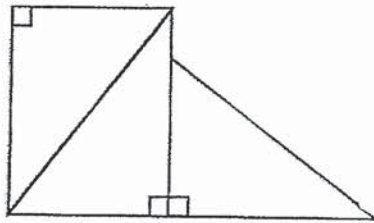
(b) AB and BE form two sides of a parallelogram ABEF. Complete the drawing of parallelogram ABEF. [2]



- 9 The sides of the right-angled triangle shown below are in the ratio 3 : 4 : 5. The length of the shortest side is 12 cm.



- (a) What is the length of the longest side of the triangle?
- (b) The figure below is made up of 3 such triangles.



What is the perimeter of the figure?

Ans: (a) _____ [1]

(b) _____ [2]

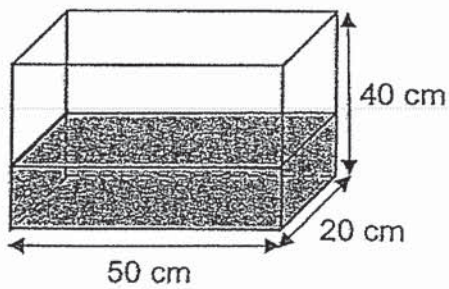
- 10 The total number of pins produced by Machine A and Machine B was 964. The total number of pins produced by Machine A and Machine C was 1146. The total number of pins produced by Machine B and Machine C was 1106. Find the average number of pins produced by the 3 machines.

Ans: _____ [3]

- 11 For a week, Sharon worked a total of $28\frac{2}{3}$ h from Monday to Friday, $7\frac{2}{5}$ h on Saturday and $6\frac{1}{4}$ h on Sunday. Rita worked 3 h fewer than Sharon for that week. How many hours did both of them work for the week?

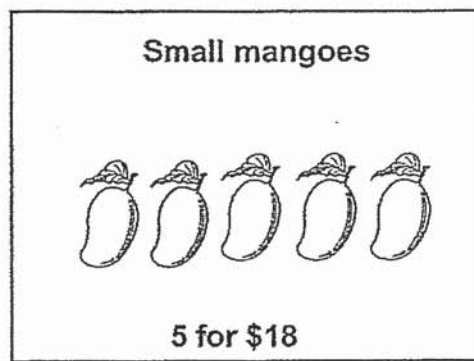
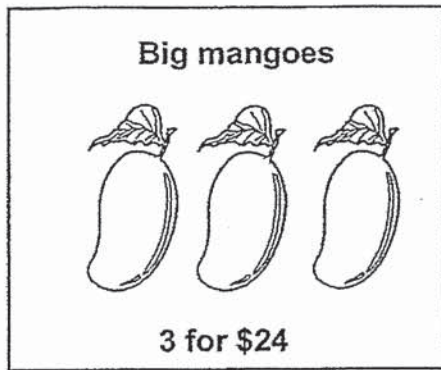
Ans: _____ [4]

- 12 A tank, measuring 50 cm by 20 cm by 40 cm, was $\frac{2}{5}$ filled with water as shown below. Some water was then added into the tank. After that, the height of the water level in the tank increased to 28 cm. What was the volume of water added into the tank? Express your answer in litres.



Ans: _____ [4]

- 13 Jun Ki and Min Joon bought mangoes at the prices shown below.

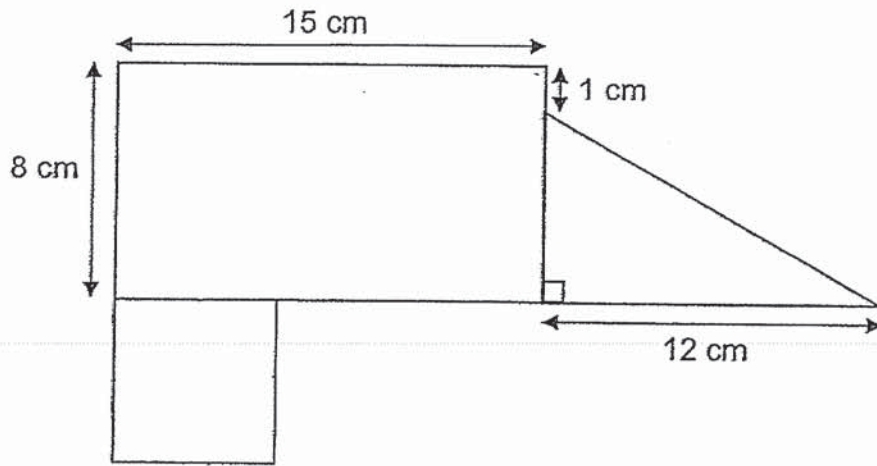


- (a) Jun Ki had \$200. What was the greatest number of big mangoes he could buy with \$200?
- (b) Min Joon bought an equal number of big mangoes and small mangoes. He spent \$66 less on the small ones. How many mangoes did he buy altogether?

Ans: (a) _____ [2]

(b) _____ [3]

- 14 The figure below is made up of a rectangle, a square and a right-angled triangle. The area of the square is $\frac{2}{11}$ of the area of the figure.

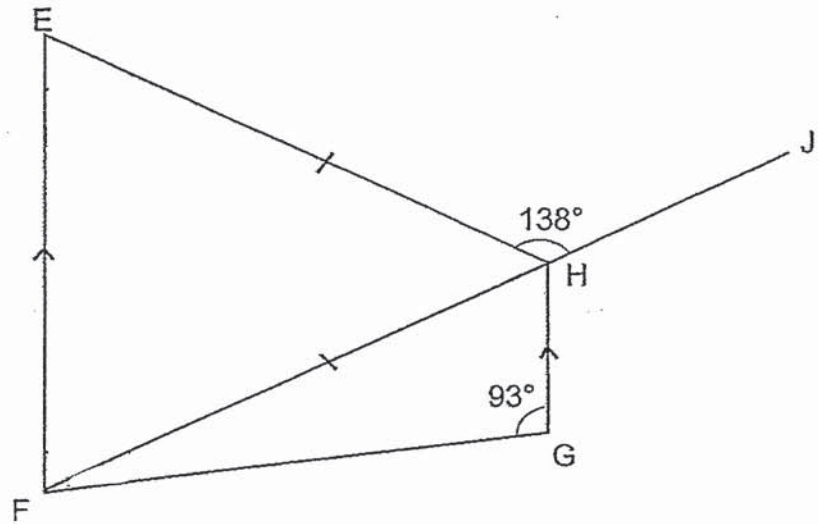


- (a) Find the area of the square.
- (b) What is the length of the square?

Ans: (a) _____ [3]

(b) _____ [1]

- 15 In the figure below, EFGH is a trapezium and EFH is an isosceles triangle. FHJ is a straight line and $EH = FH$. $\angle FGH = 93^\circ$ and $\angle EHJ = 138^\circ$.



- (a) Find $\angle FEH$.
 (b) Find $\angle JFG$.

Ans: (a) _____ [2]

(b) _____ [2]

- 16 The table below shows the parking charges at a car park.

Between 7 a.m. to 5 p.m.	
For the first hour	\$1.60
For every subsequent 30 min or part thereof	\$0.90
Between 5 p.m. to 12 midnight (Carpark is closed from 12 midnight to 7 a.m.)	
Per entry	\$3.00

- (a) Ahmad parked his car from 12.20 p.m. to 4.30 p.m. How much were his parking charges?
- (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
Mrs Selvi paid more than \$3 for the parking charges when she parked her car from 6 p.m. to 8 p.m.			
Sam paid \$1.60 for the parking charges when he parked for 60 minutes.			

[2]

Ans: (a) _____ [2]

17 Jie Lun formed some figures using squares and circles as shown below.

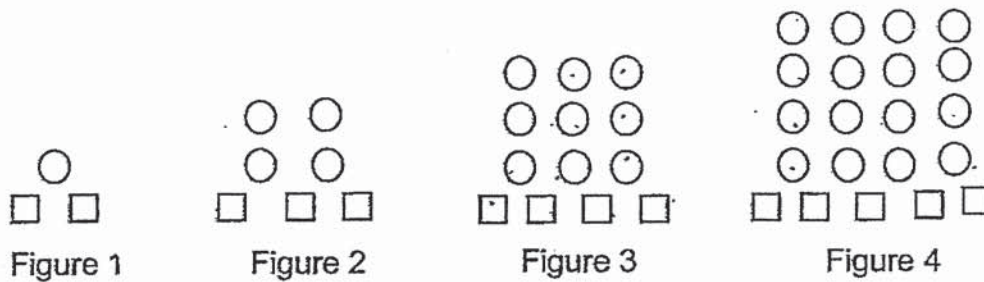


Figure	1	2	3	4
Number of circles	1	4	9	16
Number of squares	2	3	4	5
Total number of circles and squares	3	7	13	21

- (a) Find the number of squares in Figure 6.
- (b) Find the total number of circles and squares in Figure 10.
- (c) A figure in the pattern has a total of 6481 circles and squares. What is the Figure Number?

Ans: (a) _____ [1]

(b) _____ [2]

(c) _____ [2]

End of Paper

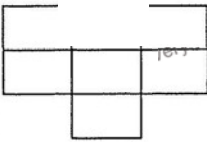
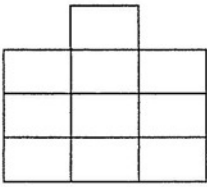
ANSWER KEY

YEAR : 2019
 LEVEL : PRIMARY 5
 SCHOOL : NANYANG PRIMARY SCHOOL
 SUBJECT : MATHEMATICS
 TERM : SA2

SECTION A

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

SECTION B

Q16	96
Q17	300.75
Q18	20
Q19	$180 - 48 - 118 = 14$
Q20	$90 - 29 = 61$
Q21	$\angle JLM = (180 - 70) \div 2 = 55$
Q22	$\frac{2}{3} \times \frac{3}{5} = \frac{2}{5}$
Q23	$100 \times 70 \times 40 = 280\,000\text{cm}^3$
Q24	$362 + 270 + 367 = 999$ $999 \div 3 = 333\text{ml}$
Q25	\$5150
Q26	$1830 + 85 = 1915 \approx 1920$
Q27	$\$15.50 - \$5.50 = \$10.00$ $\$10 - \$5.50 = \$4.50$ (ans) (hint: T has \$10 and G has \$20 in the end)
Q28	<div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> <p>Top</p>  </div> <div style="text-align: center;"> <p>Front view</p>  </div> </div>
Q29	$\frac{1}{2} \times 12 \times 3 = 18\text{cm}^2$
Q30	$133 \times 3 = 399$ $399 - 128 = 271$ $271 - 140 - 102 = 29$ (a) 9 (b) 2

SECTION C

Q1	$4\frac{1}{8} + 5\frac{2}{7} = 9\frac{23}{56} \text{ kg}$
Q2	$8\frac{3}{4} \times 4 = \frac{172}{5} = 34\frac{2}{5} \text{ l}$
Q3	$\$252 \div 4 = 63 \text{ files}$
Q4	$90 - 60 = 30^\circ$
Q5	1.29, 1.92, 2.19, 2.91, 9.12, 9.21 Ans \rightarrow 6
Q6	$\$12.90 - \$2.70 = \$10.20$ $\$10.20 \div 3 = \3.40 $\$3.40 + \$2.70 = \$6.10$
Q7	$\frac{85}{100} \times 4 = \3.40 $\$3.40 \times 3 = \10.20 $\$10.20 + 4 = \14.20
Q8	
Q9	$3u \rightarrow 12$ $1u \rightarrow 12 \div 3 = 4$ $5u \rightarrow 4 \times 5 = 20$ $4u \rightarrow 4 \times 4 = 16$ $16 - 12 = 4 \text{ (gap)}$ $(16 \times 2) + (12 \times 2) + 20 + 4 = 80$ Ans(a) \rightarrow 20 cm Ans(l) \rightarrow) cm
Q10	$964 + \quad + 1106 = 3216$ $3216 \div 2 = 1608$ $1608 \div 3 = 536$
Q11	$28\frac{2}{3} + 7\frac{2}{5} + 6\frac{1}{4} = 42\frac{19}{60}$ $42\frac{19}{60} - 3 = 39\frac{19}{60}$ $42\frac{19}{60} + 39\frac{19}{60} = 81\frac{19}{30} \text{ hours}$
Q12	$\frac{2}{5} \times 50 \times 20 \times 40 = 16\,000$ $50 \times 20 \times 28 = 28\,000$ $28\,000 - 16\,000 = 12\,000$ $12\,000 \text{ cm}^2 = 12 \text{ l}$

Q13	<p>(a) $200 \div 24 = 8 \text{ R } 8$ $8 \times 3 = \underline{24}$ mangoes</p> <p>(b) $5 \times 24 = 120$ $3 \times 18 = 54$ $120 - 54 = 66$ $15 \times 2 = 30$ mangoes</p>
Q14	<p>(a) $15 \times 8 = 120$ $\frac{1}{2} \times 12 \times 7 = 42$ $120 + 42 = 162$ $9u \rightarrow 162$ $1u \rightarrow 162 \div 9 = 18$ $2u \rightarrow 18 \times 2 = \underline{36}$</p> <p>(b) $\sqrt{36} = \underline{6}$</p>
Q15	<p>(a) $\angle EHF = 180 - 138 = 42$ $\angle FEH = (180 - 42) \div 2 = 69^\circ$ a) \$7.90</p> <p>(b) $\angle JFG = 180 - 69 - 93 = 18^\circ$</p>
Q16	<p>(a) False (b) Not possible to tell</p>
Q17	<p>(a) $6 + 1 = \underline{7}$ (b) $10 + 1 = 11$ $10 \times 10 = 100$ $100 + 11 = \underline{111}$</p> <p>(c) $80 + 80 = 6400$ $80 + 1 = 81$ $6400 + 81 = 6481$</p> <p>Ans(a) $\rightarrow 7$ Ans(b) $\rightarrow 111$ Ans(c) $\rightarrow 80$</p>

