



NANYANG PRIMARY SCHOOL

**FIRST SEMESTRAL ASSESSMENT
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 47 186, the digit 7 stands for _____.

- (1) 7 ten thousands
- (2) 7 thousands
- (3) 7 hundreds
- (4) 7 tens

2 Find the value of $26 + (12 - 9 \div 3) \times 4 - 2$.

- (1) 28
- (2) 54
- (3) 60
- (4) 138

3 Express $\frac{7}{20}$ as a decimal.

(1) 0.07

(2) 0.14

(3) 0.28

(4) 0.35

4 $13.798 = 10 + 3 + \frac{7}{10} + \frac{9}{100} + \frac{8}{\square}$
What is the missing number in the $\square$?

(1) 10

(2) 100

(3) 1000

(4) 10 000

5 Express 3015 cm in metres.

(1) 3.015 m

(2) 30.15 m

(3) 301.5 m

(4) 301 500 m

6 Express 0.72 as a fraction in its simplest form.

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

(2) $\frac{18}{25}$

(3) $\frac{36}{50}$

(4) $\frac{72}{100}$

7 Find the value of 20.1×100 .

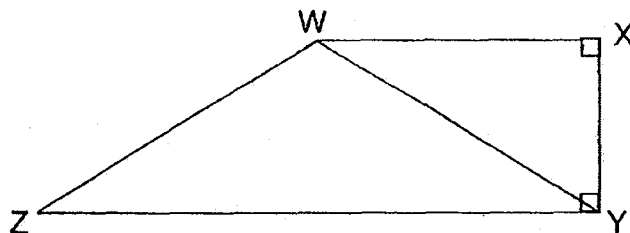
(1) 0.201

(2) 2.01

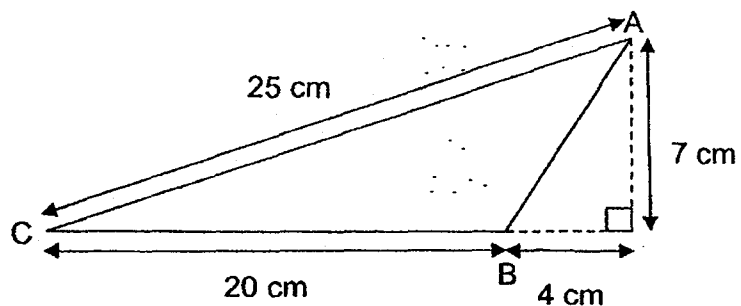
(3) 201

(4) 2010

- 8 The figure below is made up of triangle WYZ and triangle WXY. Given that the base of triangle WYZ is YZ, find its height.



- (1) XY
(2) WX
(3) WY
(4) WZ
- 9 Find the area of triangle ABC.



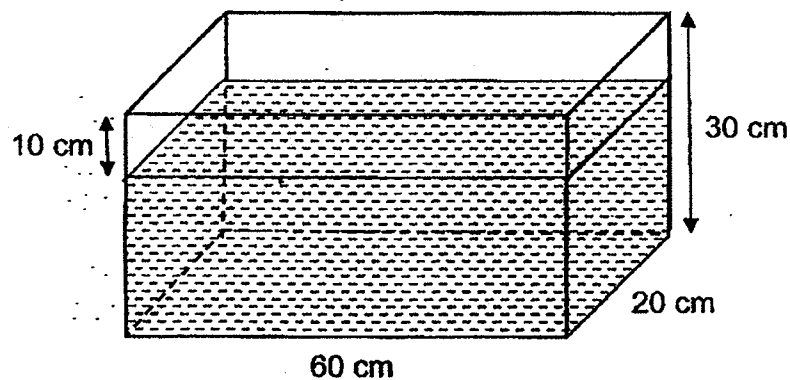
- (1) 14 cm^2
(2) 70 cm^2
(3) 84 cm^2
(4) 87.5 cm^2

- 10** Express 4000 ml in cm^3 .
- (1) 4000 cm^3
 - (2) 400 cm^3
 - (3) 40 cm^3
 - (4) 4 cm^3
- 11** Mr Lee sold 1256 egg tarts in May. He sold 131 more egg tarts in May than in June. How many egg tarts did he sell in both months?
- (1) 1125
 - (2) 1387
 - (3) 2381
 - (4) 2643
- 12** A total of \$320 000 was collected by a school during a fund-raising campaign. There were 10 classes in the school and there were 20 pupils in each class. Each pupil in the school collected the same amount of money. How much money was collected from each pupil?
- (1) \$1600
 - (2) \$3200
 - (3) \$16 000
 - (4) \$32 000

- 13 The total mass of 3 identical tennis balls and 4 identical golf balls is 0.352 kg. The total mass of 3 such tennis balls and 3 such golf balls is 0.306 kg. What is the mass of 1 golf ball?

- (1) 0.046 kg
- (2) 0.054 kg
- (3) 0.056 kg
- (4) 0.094 kg

- 14 A rectangular tank measuring 60 cm by 20 cm by 30 cm contains some water as shown below.



Find the volume of water in the tank.

- (1) 12 000 cm³
- (2) 24 000 cm³
- (3) 36 600 cm³
- (4) 48 000 cm³

- 15 There were 216 pupils in a school hall. $\frac{1}{3}$ of the pupils wore spectacles.
 $\frac{5}{6}$ of the pupils who wore spectacles were boys. How many boys wore spectacles?

- (1) 12
- (2) 60
- (3) 72
- (4) 180



NANYANG PRIMARY SCHOOL

**FIRST SEMESTRAL ASSESSMENT
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 24 May 2019. We seek your understanding in this matter as any delay in the confirmation of marks will lead to delays in the generation of results.

Questions **16** to **20** carry 1 mark each. Write your answers in the spaces provided. For questions which require units, give your answers in the units stated. (5 marks)

- 16** Write three million, four hundred and two thousand and five hundred in numerals.

Ans: _____

- 17** What is the value of $2 \times 12 + 15 \div 3 - 2$?

Ans: _____

- 18** What is the value of $16.84 \div 4$?

Ans: _____

- 19 Find the product of $\frac{7}{8}$ and $\frac{4}{7}$

Express your answer as a fraction in its simplest form.

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 Jun Xi took 45 min to travel from his house to his school. He left his house at 06 45. What time did he reach his school? Express your answer in 24-hour clock.

Ans: _____

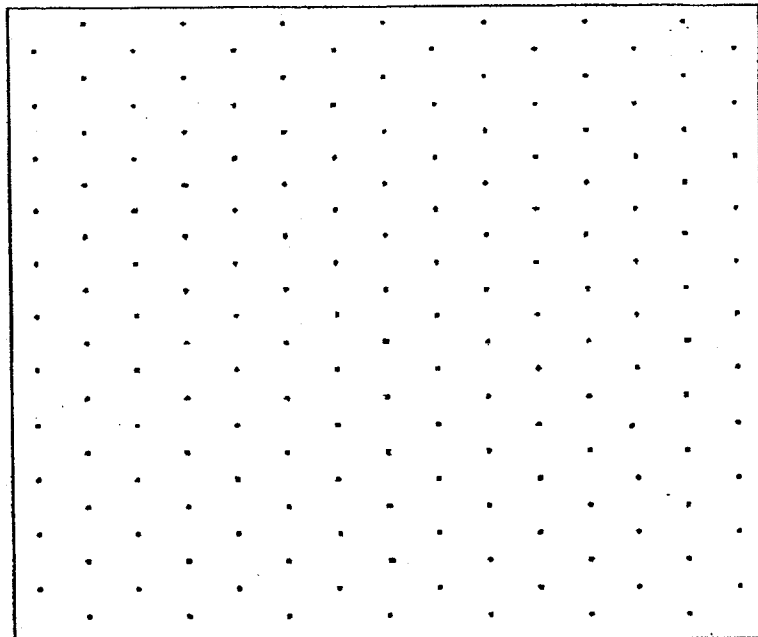
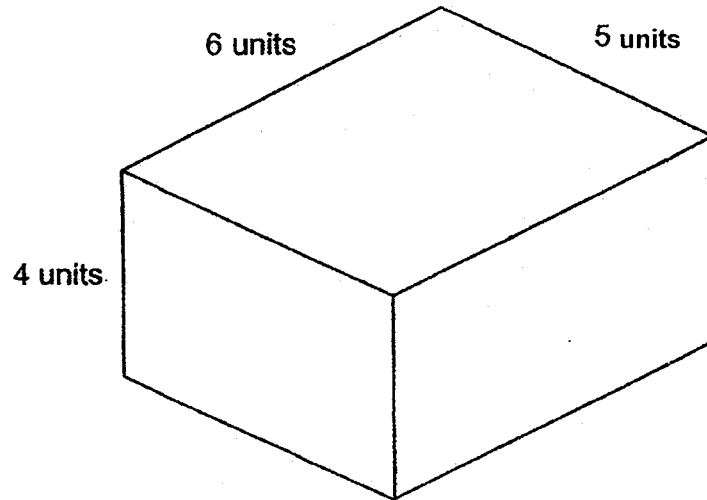
- 22 10 identical chocolate bars were shared equally among 12 children. What fraction of a chocolate bar did each child get?

Ans: _____

- 23 At a plantation, there are 40 rows of banana plants. There are 150 banana plants in each row. How many banana plants are there at the plantation?

Ans: _____

- 20 Draw the solid shown below on the given isometric grid.



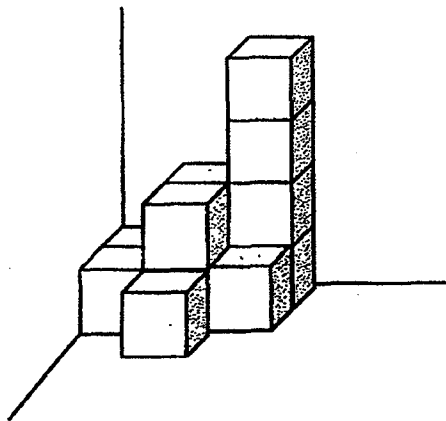
- 24** A number when rounded to the nearest hundred is 9700. What is the smallest possible value of the number?

Ans: _____

- 25** The total mass of 50 identical marbles is 0.65 kg. What is the mass of a marble?

Ans: _____ kg

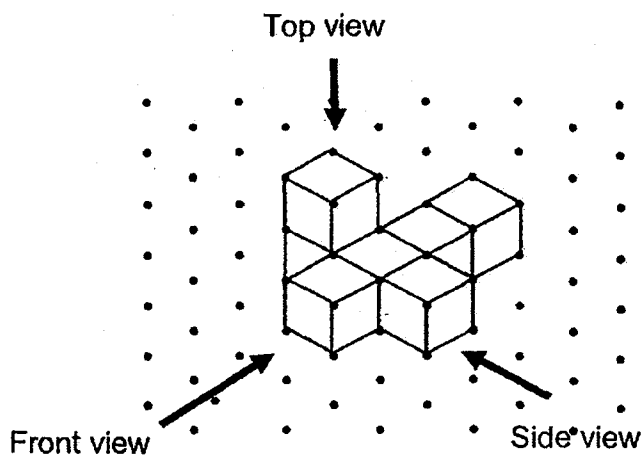
- 26** The solid below is built using unit cubes.



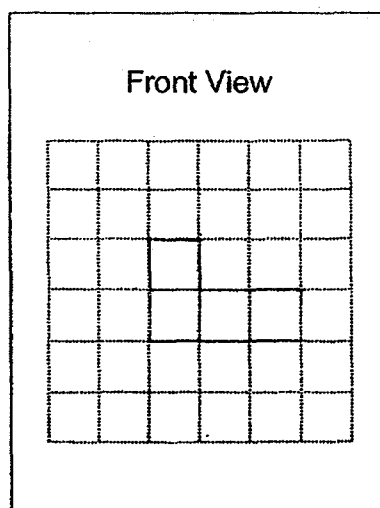
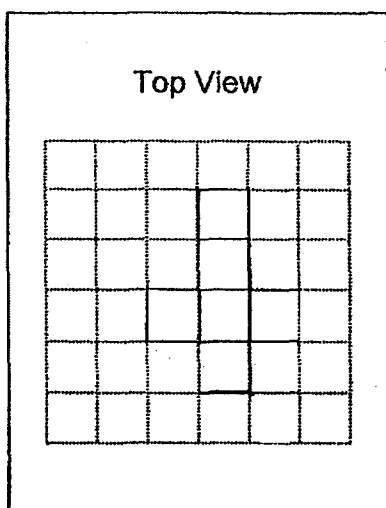
How many unit cubes are used to build the solid?

Ans: _____

- 27 The solid below is built using unit cubes.



Draw the top view and front view of the solid on the square grids provided below.



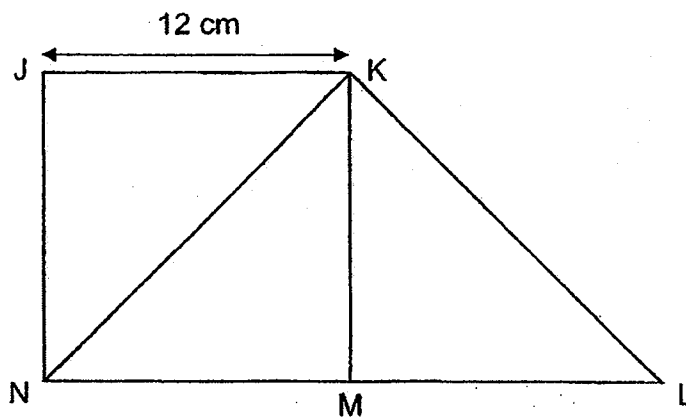
- 28 A beaker is $\frac{1}{3}$ -filled with water at first. After pouring 360 ml of water into the beaker, the beaker is $\frac{1}{2}$ -filled with water. What is the capacity of the beaker? Give your answer in litres.

Ans: _____ l

- 29 Polly had equal lengths of orange and green ropes. After using 18.5 m of orange rope and 35.5 m of green rope, the length of the remaining orange rope was 5 times the length of the remaining green rope. What was the length of the remaining green rope?

Ans: _____ m

- 30 The figure below is made up of a square and a triangle. JKMN is a square. KLN is a triangle. LMN is a straight line. Given that $JK = 12\text{ cm}$ and LN is twice as long as JK, what is the area of the figure?



Ans: _____ cm^2

End of Paper



NANYANG PRIMARY SCHOOL

**FIRST SEMESTRAL ASSESSMENT
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 24 May 2019. We seek your understanding in this matter as any delay in the confirmation of marks will lead to delays in the generation of results.

-

Questions 1 to 5 carry 2 marks each. Show your working clearly and write your answers in the spaces provided. For questions which require units, give your answers in the units stated. (10 marks)

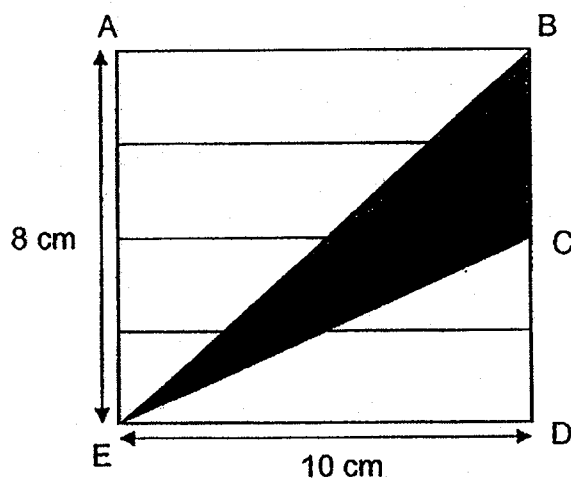
- 1 There were 648 adults at a stadium. $\frac{4}{9}$ of the adults were men. How many men were there at the stadium?

Ans: _____

- 2 The masses of John, Gregory and Ethan are $38\frac{1}{5}$ kg, $41\frac{1}{3}$ kg and $52\frac{1}{4}$ kg respectively. Find the total mass of the 3 children. Give your answer as a mixed number in its simplest form.

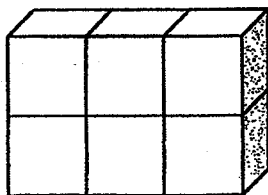
Ans: _____ kg

- 3 ABDE is a rectangle which is made up of 4 smaller identical rectangles. BCE is a shaded triangle. The length of BC is half that of AE. DE is 10 cm and AE is 8 cm. Find the total area of the unshaded parts.



Ans: _____ cm²

- 4 The solid below is made up of 6 identical cubes of edge 5 cm. What is the volume of the solid?



Ans: _____ cm³

- 5 The mass of a glass bottle filled with 10 identical erasers is 1200 g. The mass of the same bottle when filled with 6 such erasers is 1040 g. What is the mass of each eraser?

Ans: _____ g

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 breadth of a rectangle is $\frac{37}{4}$ cm. Its length is $\frac{7}{2}$ cm longer than its breadth.

- (a) What is the length of the rectangle? Express your answer as an improper fraction.
- (b) What is the area of the rectangle? Express your answer as a mixed number in its simplest form.

Ans: (a) _____ [1]

(b) _____ [2]

- 7 Mr Wang bought $2\frac{1}{4}$ kg of green beans and 3 times as much red beans as green beans. The cost of 1 kg of green beans was \$4 and the cost of 1 kg of red beans was \$5. What was the total amount of money Mr Wang spent on the green beans and red beans?

Ans: _____ [3]

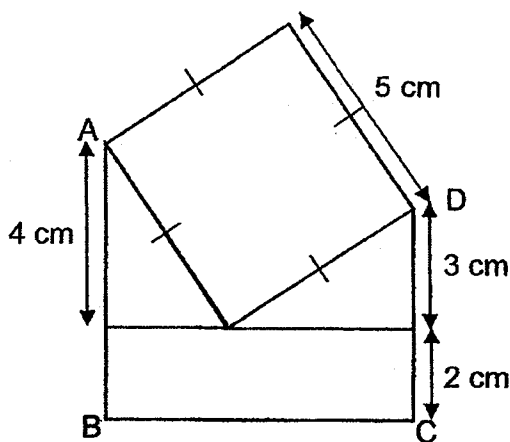
- 8 There is a total of 8.4 kg of salt in 3 containers, X, Y and Z altogether. 0.4 kg of salt is moved from container X to container Y and 1.5 kg of salt is moved from container Z to container Y. In the end, there is an equal amount of salt in each container.

- (a) How much salt is there in each container in the end?
- (b) How much salt is there in container Y at first?

Ans: (a) _____ [1]

(b) _____ [2]

- 9 The following figure is made up of a square, a rectangle and 2 identical triangles. AB and CD are straight lines.

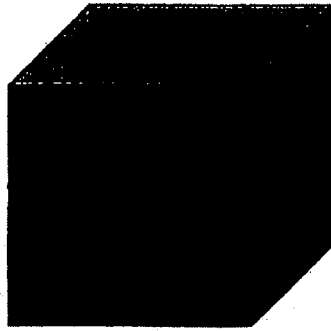


- (a) What is the length of the rectangle?
- (b) What is the area of the figure?

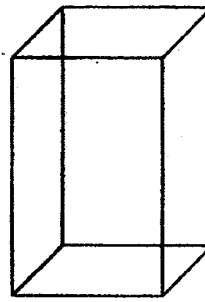
Ans: (a) _____ [1]

(b) _____ [2]

- 10 Tank A, a cubical tank of edge 13 cm, was completely filled with water. Water was then poured from Tank A to an empty Tank B measuring 9 cm long by 11 cm wide by 13 cm high until Tank B was filled to its brim. How much water was left in Tank A?



Tank A



Tank B

Ans: _____ [3]

- 11 George has some red, blue and green stickers. $\frac{4}{9}$ of the stickers are red. $\frac{2}{5}$ of the remaining stickers are blue and the rest are green. The number of green stickers is 36 fewer than the number of red stickers.

- (a) What fraction of the stickers are green?
- (b) How many stickers does George have?

Ans: (a) _____ [2]

(b) _____ [2]

- 12** Sri and Devi had a total of 2160 g of flour at first. Sri used twice as much flour as Devi. Devi had twice as much flour left as Sri. The mass of flour that Devi had left was 60 g more than what she had used. How much flour did Sri have at first?

Ans: _____ [4]

- 13** Kay had a total of 13 two-dollar, five-dollar and ten-dollar notes. The total value of the 13 notes was \$89. He then used all his ten-dollar notes to pay for a toy car.

- (a) How many five-dollar notes did Kay have?
- (b) How much did he pay for the toy car?

Ans: (a) _____ [3]

(b) _____ [1]

- 14 During a sale, cooking pots and frying pans were sold at the prices shown in the table below.

Cooking pot

Buy 1 at \$810.90
Buy 2 or more at \$800 each

Frying pan

Buy 1 at \$640
Buy 2 or more at \$630.50 each

- a) Naomi bought 1 cooking pot and 4 frying pans during the sale. What was the smallest amount of money she paid?
- (b) Zechariah had \$3000. What was the greatest number of cooking pots he could buy with \$3000?

Ans: (a) _____ [2]

(b) _____ [2]

- 15 In a chocolate shop, $\frac{3}{4}$ of the chocolates were white chocolates and the rest were dark chocolates. $\frac{1}{6}$ of the dark chocolates were sold. There were 75 pieces of dark chocolate left. How many pieces of chocolate were there in the shop at first?

Ans: _____ [4]

- 16 Jiemin has some orange juice. If he fills 20 identical cups with the orange juice, he will have 600 ml of the orange juice left. If he tries to fill 6 identical jugs with the orange juice instead, he will be short of 400 ml of the orange juice. The capacity of a jug is the same as that of 4 such cups.

- (a) What is the capacity of a jug?
- (b) How much orange juice does Jiemin have?

Ans: (a) _____ [3]

(b) _____ [2]

- 17 Mrs Kwek bought a total of 576 red, blue and yellow buttons. $\frac{3}{4}$ of the buttons were red and blue buttons. $\frac{2}{3}$ of the buttons were blue and yellow buttons.

- (a) What fraction of the buttons were red?
- (b) Find the difference between the number of blue buttons and the number of yellow buttons.

Ans: (a) _____ [2]

(b) _____ [3]

End of Paper



NANYANG PRIMARY SCHOOL

FIRST SEMESTRAL ASSESSMENT 2018

PRIMARY 5

MATHEMATICS
PAPER 1
(BOOKLET A)

Total Duration for Booklets A and B: 1 hour
Materials: Optical Answer Sheet (OAS)

INSTRUCTIONS TO PUPILS

Turn over this page until you are told to do so.
All instructions apply.
Write your answers in the Optical Answer Sheet (OAS) provided.
Use of calculators is NOT allowed.

Express 0.72 as a fraction in its simplest form.

$$\frac{72}{100} = \frac{18}{25}$$

(2)

Find the value of 20.1×100 .

$$20.1 \times 100 = 2010$$

(4)

www.sgexa.com

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.
Mark your choice (1, 2, 3 or 4) and shade your answer on the Optical Answer Sheet.

1 In 17 180, the digit 7 stands for _____.

- (1) 7 ten thousands
- (2) 7 thousands
- (3) 7 hundreds
- (4) 7 tens

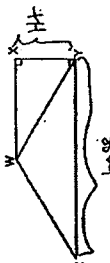
(2)

2 Find the value of $25 \times (12 - 8) \times 4 - 2$.

$$\begin{aligned} & 25 \times (12 - 8) \times 4 - 2 \\ &= 25 \times 4 \times 4 - 2 \\ &= 26 + 36 - 2 \\ &= 62 - 2 \\ &= 60 \end{aligned}$$

(3)

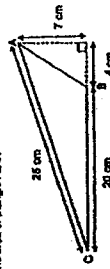
3 The figure below is made up of triangle WYZ and triangle WXY. Given that the base of triangle WYZ is YZ, find its height.



- (1) XY
- (2) WY
- (3) WZ
- (4) YZ

(1)

4 Find the area of triangle ABC.



- (1) 14 cm²
- (2) 70 cm²
- (3) 84 cm²
- (4) 97.5 cm²

$$\frac{1}{2} \times 20 \times 7 = 70$$

(2)

5 Express 4000 ml in cm³.

- (1) 4000 cm³
- (2) 400 cm³
- (3) 40 cm³
- (4) 4 cm³

(1)

6 Mr Lee sold 1250 egg tarts in May. He sold 131 more egg tarts in May than in June. How many egg tarts did he sell in June?

$$\begin{aligned} & 1250 - 131 = 1119 \\ & 1119 + 1250 = 2369 \end{aligned}$$

(3)

7 A total of \$320 000 was collected by a school during a fund-raising campaign. There were 10 classes in the school and there were 20 pupils in each class. Each pupil in the school collected the same amount of money. How much money was collected from each pupil?

$$\begin{aligned} & 320\,000 \div 20 = 16\,000 \\ & 16\,000 \div 20 = 800 \end{aligned}$$

(1)

8 Express $\frac{7}{20}$ as a decimal.

- (1) 0.07
- (2) 0.14
- (3) 0.28
- (4) 0.35

(4)

9 $13.768 = 10 + 3 + \frac{7}{10} + \frac{6}{100} + \frac{8}{1000}$
What is the missing number in the $\square$?

- (1) 10
- (2) 100
- (3) 1000
- (4) 10 000

(3)

10 Express 3015 cm in metres.

- (1) 3.015 m
- (2) 30.15 m
- (3) 301.5 m
- (4) 301 500 m

(2)

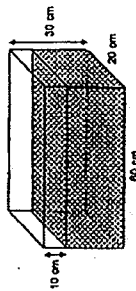
11 The total mass of 3 identical tennis balls and 4 identical golf balls is 0.352 kg. The total mass of 3 such tennis balls and 3 such golf balls is 0.306 kg. What is the mass of 1 golf ball?

- (1) 0.046 kg
- (2) 0.054 kg
- (3) 0.066 kg
- (4) 0.094 kg

(1)

$$0.352 - 0.306 = 0.046$$

12 A rectangular tank measuring 60 cm by 20 cm by 30 cm contains some water as shown below.



Find the volume of water in the tank.

- (1) 12 000 cm³
- (2) 24 000 cm³
- (3) 36 000 cm³
- (4) 48 000 cm³

$$\begin{aligned} & 30 - 10 = 20 \\ & 60 \times 20 \times 20 = 24\,000 \end{aligned}$$

(2)

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- 15 There were 216 pupils in a school. $\frac{1}{3}$ of the pupils were specialists, $\frac{2}{3}$ of the pupils who were specialists were boys. How many boys were specialists?
- (1) 12
(2) 60
(3) 72
(4) 180

$$\frac{1}{3} \times 216 = 72$$

$$\frac{2}{3} \times 72 = 60$$

$$(2)$$

NANYANG PRIMARY SCHOOL
FIRST SEMESTRAL ASSESSMENT
2019
PRIMARY 5
MATHEMATICS
PAPER 1
(BOOKLET B)

Total Duration for Booklets A and B: 1 hour

INSTRUCTIONS TO PUPILS

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

Name: _____
Class: Primary 5 () ()

Booklet B / 25

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

- Questions 16 to 20 carry 1 mark each. Write your answers in the spaces provided. For questions which require units, give your answers in the units indicated. (5 marks)

- 16 Write three million, four hundred and two thousand and five hundred in numerals.

Ans: 3 402 500

- 17 What is the value of $2 \times 12 \div 18 \div 3 \div 2$?

$$2 \times 12 \div 15 \div 3 \div 2$$

$$= 24 \div 5 \div 2$$

$$= 24 \div 2$$

$$= 12$$

Ans: 12

- 18 What is the value of $16.84 \div 4$?

$$\begin{array}{r} 4.21 \\ 4 \overline{) 16.84} \\ \underline{16} \\ 08 \\ \underline{08} \\ 04 \\ \underline{04} \\ 00 \end{array}$$

Ans: 4.21

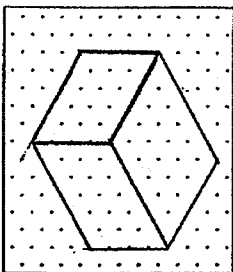
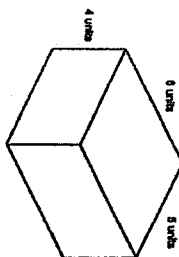
- 19 Find the product of $\frac{1}{2}$ and $\frac{1}{4}$.

Express your answer as a fraction in its simplest form.

$$\frac{1}{2} \times \frac{1}{4} = \frac{1}{8}$$

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

- 20 Draw the solid shown below on the given isometric grid.



- Questions 21 to 25 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 indicated. (20 marks)

- 21 Jan 20 took 45 min to travel from his house to his school. He left his house at 06 45. How long did he reach his school? Express your answer in 24-hour clock.

$$\begin{array}{r} 45 \text{ min} \\ 06 45 \\ \underline{07 30} \\ 07 30 \end{array}$$

Ans: 07 30

- 22 10 identical chocolate bars were shared equally among 12 children. What fraction of a chocolate bar did each child get?

$$10 \div 12 = \frac{10}{12}$$

$$= \frac{5}{6}$$

Ans: $\frac{5}{6}$ or $\frac{10}{12}$

- 23 At a plantation, there are 40 Tons of banana plants. There are 160 banana plants in each ton. How many banana plants are there at the plantation?

$$40 \times 160 = 6400$$

Ans: 6400

A number when rounded to the nearest hundred is 9700. What is the smallest possible value of the number?

$$9650 \approx 9700$$

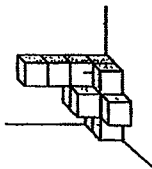
Ans: 9650

The total mass of 50 identical marbles is 0.65 kg. What is the mass of a marble?

$$0.65 \div 50 = 0.013 \text{ kg}$$

Ans: 0.013 kg

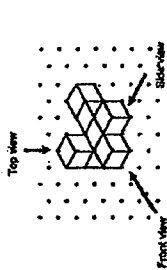
The solid below is built using unit cubes.



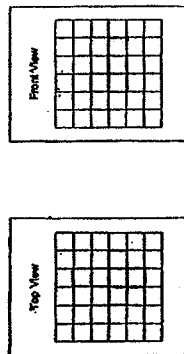
How many unit cubes are used to build the solid?

Ans: 12

27 The solid below is built using unit cubes.



Draw the top view and front view of the solid on the square grids provided below.



28 A beaker is $\frac{1}{3}$ filled with water at first. After pouring 360 ml of water into the beaker, the beaker is $\frac{2}{3}$ filled with water. What is the capacity of the beaker? Give your answer in litres.

$$\frac{1}{3} - \frac{1}{3} = \frac{1}{3}$$

$$\frac{1}{3} \rightarrow 360$$

$$\frac{2}{3} \rightarrow 720 \text{ ml}$$

$$720 \text{ ml} = 0.72 \text{ l}$$

Ans: 0.72 l

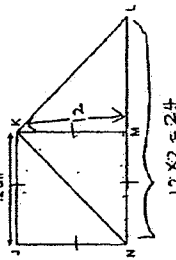
29 Pity had equal lengths of orange and green ropes. After using 18.5 m of orange rope and 17.4 m of green rope, Pity has 4.25 m of orange rope left. What was the length of the remaining green rope?

$$35.5 - 18.5 = 17$$

$$17 + 4 = 21$$

Ans: 21 m

30 The figure below is made up of a square and a triangle. JKLM is a square. KLMN is a triangle. LMN is a straight line. Given that JK = 12 cm and LN is twice as long as JK, what is the area of the figure?



$$\text{Area of } \triangle KLM = \frac{1}{2} \times 12 \times 12 = 72$$

$$\text{Area of } \triangle KLN = \frac{1}{2} \times 12 \times 24 = 144$$

$$72 + 144 = 216$$

Ans: 216 cm²

End of Paper

NANYANG PRIMARY SCHOOL
FIRST SEMESTRAL ASSESSMENT
2019
PRIMARY 5
MATHEMATICS
PAPER 2
Duration: 1 hour 30 minutes

INSTRUCTIONS TO PUPILS
 1. Turn over the page until you are told to do so.
 2. Read all instructions carefully.
 3. Write your answers in the booklet.
 4. Use of an approved calculator is expected, where appropriate.

Booster A	/ 20
Booster B	/ 25
Paper 2	/ 85
Total	/ 100

For marks awarded should be raised by 24 May 2019. We seek your aid in the matter as any delay in the continuation of marks will lead 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 There were 640 adults at a stadium. $\frac{4}{5}$ of the adults were men. How many men were there at the stadium?

$$\frac{4}{5} \times 640 = 512$$

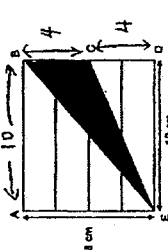
Ans: 512

2 The masses of John, Gregory and Ethan are $45\frac{1}{2}$ kg, $40\frac{1}{4}$ kg and $55\frac{1}{4}$ kg respectively. Find the total mass of the 3 children. Give your answer as a mixed number in its simplest form.

$$45\frac{1}{2} + 40\frac{1}{4} + 55\frac{1}{4} = 141\frac{1}{2}$$

Ans: 141 $\frac{1}{2}$ kg

3 ABDE is a rectangle which is made up of 4 smaller identical rectangles. BDE is a shaded triangle. The length of BD is half that of AE. DE is 10 cm and AE is 8 cm. Find the total area of the unshaded parts.



$$8 \times 10 = 80$$

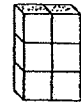
$$\frac{1}{2} \times 8 \times 10 = 40$$

$$\frac{1}{2} \times 10 \times 4 = 20$$

$$80 - 40 - 20 = 20$$

Ans: 60 cm²

4 The solid below is made up of 8 identical cubes of edge 6 cm. What is the volume of the solid?



$$6 \times 6 \times 6 = 216$$

$$216 \times 8 = 1728$$

Ans: 1728 cm³

The mass of a glass bottle filled with 10 identical marbles is 1200 g. The mass of the same bottle when filled with 6 such marbles is 1040 g. What is the mass of each marble?

$$1200 - 1040 = 160$$

$$10 - 6 = 4$$

$$160 \div 4 = 40$$

Ans: 40

For questions 8 to 17, show your working clearly and write your answers in the spaces provided. The number of marks available is shown in brackets (4 marks)

8 The breadth of a rectangle is $\frac{3}{4}$ cm. Its length is $\frac{7}{2}$ cm longer than its breadth.

(a) What is the length of the rectangle? Express your answer as an improper fraction.

(b) What is the area of the rectangle? Express your answer as a mixed number in its simplest form.

$$\frac{3}{4} + \frac{7}{2} = \frac{51}{4}$$

$$\frac{3}{4} \times \frac{51}{4} = \frac{117}{16}$$

Ans: (a) $\frac{51}{4}$ cm
(b) $\frac{117}{16}$ cm²

9 Mr Wong bought $\frac{3}{4}$ kg of green beans and 3 times as much red beans as green beans. The cost of 1 kg of green beans was \$4 and the cost of 1 kg of red beans was \$5. What was the total amount of money Mr Wong spent on the green beans and red beans?

$$2\frac{3}{4} \times 3 = 6\frac{3}{4} \text{ (Red)}$$

$$(2\frac{3}{4} \times 4) + (6\frac{3}{4} \times 5)$$

$$= 9 + 33.75$$

$$= 42.75$$

Ans: \$42.75

10 There is a total of 6.4 kg of salt in 3 containers. X and Y are 2 containers. 1 kg of salt is removed from container X to container Y and 1.8 kg of salt is added to container Y. In the end, there is an equal amount of salt in each container.

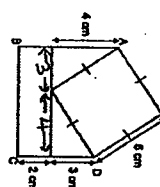
(a) How much salt is there in container Y at first?

$$8.4 \div 3 = 2.8$$

$$2.8 - 1.5 = 0.4 = 0.9$$

Ans: (a) $2.8 \frac{\text{kg}}{1}$
(b) $0.9 \frac{\text{kg}}{1}$

11 The following figure is made up of a square, a rectangle and 2 identical triangles. AD and CD are straight lines.



(a) What is the length of the rectangle?

(b) What is the area of the figure?

$$4 + 3 = 7$$

$$5 \times 5 = 25$$

$$(4 \times 3 \times 3) \times 2 = 65$$

$$25 + 65 = 90$$

12 Roy had a total of 13 two-dollar, five-dollar and ten-dollar notes. The total value of the 13 notes was \$58. He then used all the ten-dollar notes to pay for a toy car.

(a) How many five-dollar notes did Roy have?

(b) How much did the toy car cost?

Number of \$2	Number of \$5	Number of \$10	Total	Check
5	5	3	5 \times 2 = 10 5 \times 5 = 25 3 \times 10 = 30 10 + 25 + 30 = 65	X
2	6	5	2 \times 2 = 4 6 \times 5 = 30 5 \times 10 = 50 4 + 30 + 50 = 84	X
2	5	6	2 \times 2 = 4 5 \times 5 = 25 6 \times 10 = 60 4 + 25 + 60 = 89	✓

$$10 \times 6 = 60$$

Ans: (a) 5
(b) \$60

13 Tank A is a cubical tank of edge 15 cm, was completely filled with water. Water was then poured from Tank A to an empty Tank B measuring 9 cm long by 11 cm wide by 13 cm high until Tank B was filled to its brim. How much water was left in Tank A?



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$$15 \times 15 \times 15 = 3375$$

$$9 \times 11 \times 13 = 1287$$

$$3375 - 1287 = 2088$$

Ans: 2088

14 During a sale, cooking pots and frying pans were sold at the prices shown in the table below.

Cooking pot	Frying pan
Buy 1 at \$110.00 Buy 2 or more at \$200.00 each	Buy 1 at \$80.00 Buy 2 or more at \$150.00 each

(a) Noreen bought 1 cooking pot and 4 frying pans during the sale. What was the percentage of money she paid?

(b) Zachariah had \$2000. What was the greatest number of cooking pots he could buy with \$2000?

$$810.90 + (600.50 \times 4)$$

$$= 810.90 + 2402.00$$

$$= 3212.90$$

$$3000 \div 3212.90 \approx 3$$

Ans: (a) 3332.90
(b) 3

George has some red, blue and green stickers. $\frac{1}{5}$ of the stickers are red. $\frac{2}{3}$ of the remaining stickers are blue and the rest are green. The number of green stickers is 36 fewer than the number of red stickers.

(a) What fraction of the stickers are green?

(b) How many stickers does George have?

$$1 - \frac{1}{5} = \frac{4}{5} \text{ (Remaining)}$$

$$\frac{2}{3} \times \frac{4}{5} = \frac{8}{15}$$

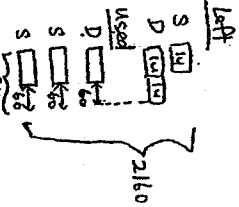
$$\frac{4}{5} - \frac{8}{15} = \frac{4}{15}$$

$$\frac{1}{4} \rightarrow 36$$

$$\frac{4}{15} \rightarrow 36 \times 9 = 324$$

Ans: (a) $\frac{4}{15}$ (or equivalent)
(b) 324

Sh and David had a total of 7150 g of flour at first. Sh used twice as much flour as David. David then used 450 g. The remaining amount of flour that David had was 80 g more than what Sh had used. How much flour did Sh have at first?



$$60 \times 3 = 180$$

$$90 = 2160 + 180$$

$$= 2340$$

$$10 = 2340 \div 9 = 260$$

$$50 = 260 \times 5 = 1300$$

$$1300 - 60 - 60 = 1180$$

Ans: 1180g

15 In a chocolate shop, $\frac{3}{4}$ of the chocolates were white chocolates and the rest were dark chocolates. $\frac{1}{4}$ of the dark chocolates were sold. There were 75 pieces of dark chocolate left. How many pieces of chocolate were there in the shop at first?

$$1 - \frac{3}{4} = \frac{1}{4} \text{ (Dark)}$$

$$\frac{1}{4} \times \frac{1}{4} = \frac{1}{16} \text{ (Darks sold)}$$

$$\frac{1}{4} - \frac{1}{16} = \frac{3}{16} \text{ (Dark, left)}$$

$$5u = 75$$

$$1u = 75 \div 5 = 15$$

$$24u = 15 \times 24 = 360$$

16 Jemini has some orange juice. If he fills 20 identical cups with the same amount of juice, he will have 600 ml of orange juice left. If he fills 30 identical cups with the same amount of juice, he will have 400 ml of orange juice left. The capacity of a jug is the same as that of each cup.

- (a) What is the capacity of a jug?
(b) How much orange juice does Jemini have?

$$6 \times \text{Cup} = 4C \times 6$$

$$30C + 600 = 6J - 400$$

$$20C + 600 = 24C - 400$$

$$24C - 20C = 600 + 400$$

$$4C = 1000$$

$$1C = 1000 \div 4 = 250$$

$$1J = 4C = 1000$$

$$20C = 250 \times 20 = 5000$$

$$5000 + 600 = 5600$$

Ans (a) 1000 ml (b) 5600 ml

17 Mrs Klein bought a total of 878 red, blue and yellow buttons. $\frac{3}{4}$ of the buttons were red and blue buttons. $\frac{2}{3}$ of the buttons were blue and yellow buttons.

- (a) What fraction of the buttons were red?
(b) Find the difference between the number of blue buttons and the number of yellow buttons.

$$1 - \frac{3}{4} = \frac{1}{4} \text{ (Red)}$$

$$1 - \frac{3}{4} = \frac{1}{4} \text{ (Yellow)}$$

$$\frac{3}{4} - \frac{1}{4} = \frac{2}{4} = \frac{1}{2} \text{ (Blue)}$$

$$\frac{3}{12} - \frac{1}{12} = \frac{2}{12} \text{ (Diff)}$$

$$12u = 576$$

$$1u = 576 \div 12 = 48$$

$$2u = 48 \times 2 = 96$$

Ans (a) $\frac{1}{4}$ (b) 96

1. *What is the purpose of the study?*
 2. *What are the research objectives?*
 3. *What is the research design?*
 4. *What are the variables?*
 5. *What is the sample size?*
 6. *What are the data sources?*
 7. *What are the data collection methods?*
 8. *What are the data analysis methods?*
 9. *What are the results?*
 10. *What are the conclusions?*
 11. *What are the limitations?*
 12. *What are the recommendations?*