



**2019 PRIMARY 6 SEMESTRAL ASSESSMENT 1**

Name \_\_\_\_\_

Date: 15 May 2019

Class: Primary 6 \_\_\_\_\_

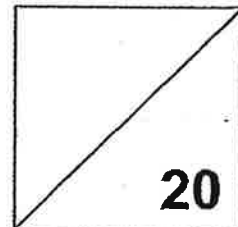
Time: 8.00 a.m. - 9.00 a.m.

Parent's Signature: \_\_\_\_\_

Marks: \_\_\_\_\_ / **100**

Paper 1 comprises 2 booklets, A and B.

**MATHEMATICS  
PAPER 1  
(BOOKLET A)**



**INSTRUCTIONS TO CANDIDATES**

1. Write your name, class and register number.
2. Do not turn over this page until you are told to do so.
3. Follow all instructions carefully.
4. Answer all questions.
5. Shade your answers in the Optical Answer Sheet (OAS) provided.
6. You are **not** allowed to use a calculator.



Questions 1 to 10 carry 1 mark each. Questions 11 to 15 carry 2 marks each.  
For each question, four options are given. One of them is the correct answer.  
Make your choice (1, 2, 3 or 4).

Shade the oval (1, 2, 3 or 4) on the Optical Answer Sheet.

(20 marks)

1. Round 42 509 to the nearest thousand.

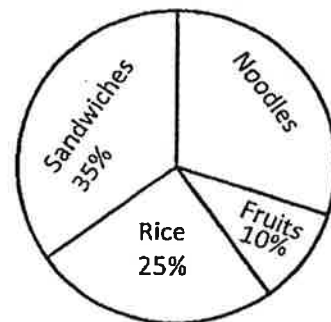
- (1) 40 000
- (2) 42 000
- (3) 42 500
- (4) 43 000

2. What does the digit 8 in 6.583 stand for?

- (1) 8 ones
- (2) 8 tenths
- (3) 8 hundredths
- (4) 8 thousandths

3. The pie chart shows the different types of food a group of workers bought for their lunch. What is the ratio of the number of workers who bought noodles to the number who bought sandwiches?

- (1) 6 : 7
- (2) 7 : 6
- (3) 3 : 10
- (4) 7 : 20



4. Which one of the following is the most common length of an adult's bed?

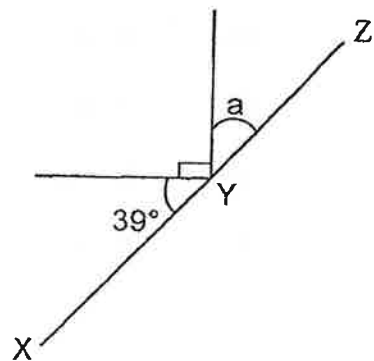
- (1) 2 m
- (2) 2 cm
- (3) 20 m
- (4) 20 cm

5. A rectangular plank has a perimeter of 150 cm. Its breadth is 30 cm. Find its area.

- (1) 5 cm<sup>2</sup>
- (2) 1350 cm<sup>2</sup>
- (3) 2940 cm<sup>2</sup>
- (4) 3600 cm<sup>2</sup>

6. XYZ is a straight line. Find  $\angle a$ .

- (1) 39°
- (2) 41°
- (3) 51°
- (4) 102°



7. Jamie paid \$10 for a box of 50 erasers. How much did each eraser cost?

- (1) 5 ¢
- (2) 2 ¢
- (3) 20 ¢
- (4) 50 ¢

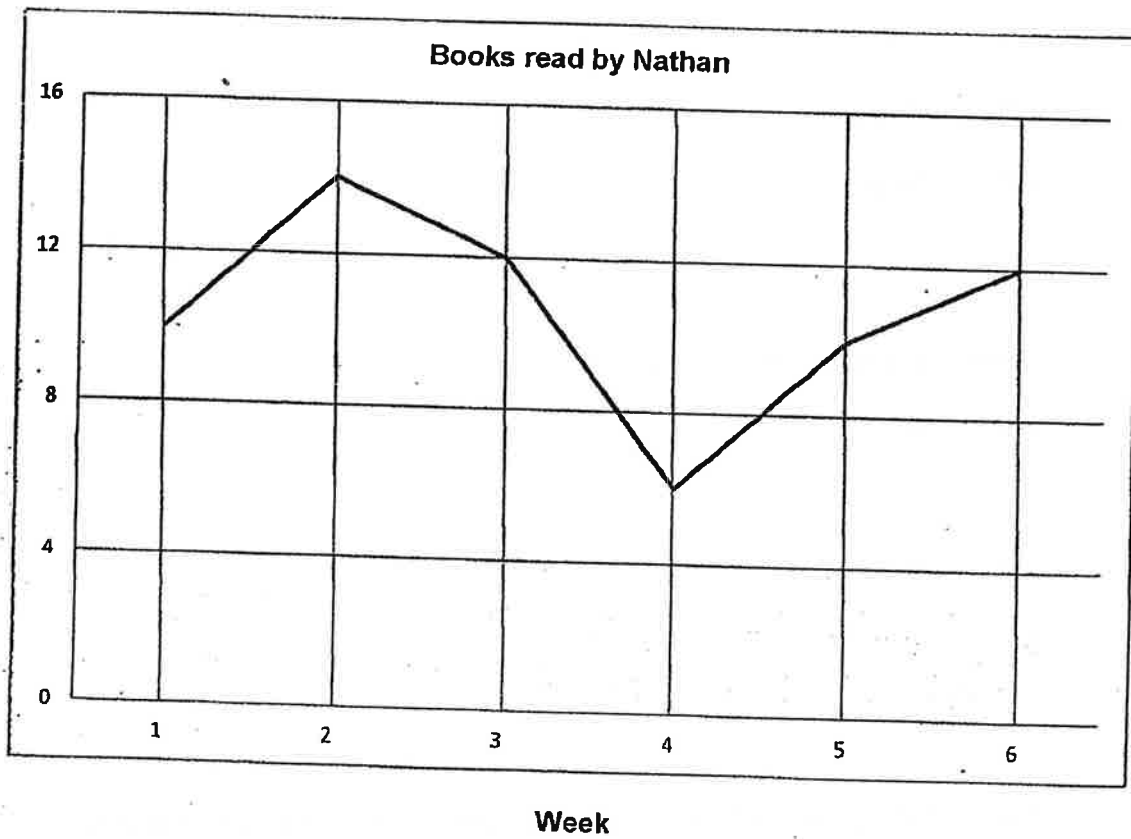
8. What is the value of  $20 - 6 \div 2 \times (2 + 3)$  ?

- (1) 5
- (2) 15
- (3) 35
- (4) 85

9. Kelly is facing the north-east direction. How should she turn so that she faces west?

- (1) 45° clockwise
- (2) 135° clockwise
- (3) 135° anti-clockwise
- (4) 225° anti-clockwise

10. The graph below shows the number of books read by Nathan in 6 weeks. His target is to read a minimum of 12 books in a week. How many weeks did Nathan achieve this target?



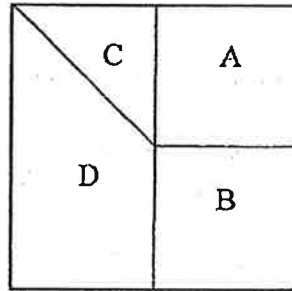
- (1) 1
- (2) 2
- (3) 3
- (4) 4

11. Mrs Chew paid \$46 for an electric iron after a discount of 60%. What was the price of the electric iron before discount?

- (1) \$18.40
- (2) \$27.60
- (3) \$73.60
- (4) \$115

12. The figure shown is a square made up of four parts, A, B, C and D. A and B are squares that form 50% of the figure. Which of the following two parts will add up to form  $\frac{5}{8}$  of the figure?

- (1) A and C
- (2) B and C
- (3) C and D
- (4) A and D



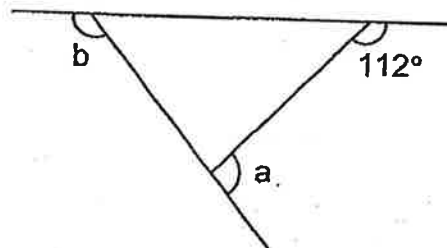
13. Sam is  $e$  years old now. In 10 years' time, his mother will be thrice as old as he. How old is Sam's mother now?

- (1)  $(3e - 10)$  years
- (2)  $(3e - 20)$  years
- (3)  $(3e + 10)$  years
- (4)  $(3e + 20)$  years

14. Melvin does his morning exercise by climbing up and down the stairs in his block. He always starts at the floor where his flat is. He goes up 4 floors, down 6 floors and then up 5 floors, to finish on the 8<sup>th</sup> floor. At what floor is Melvin's flat?

- (1) 5<sup>th</sup>
- (2) 11<sup>th</sup>
- (3) 3<sup>rd</sup>
- (4) 4<sup>th</sup>

15. In the figure,  $\angle a + \angle b =$  \_\_\_\_\_



- (1) 68°
- (2) 112°
- (3) 136°
- (4) 248°

---

End of Booklet A  
Go on to Booklet B





## 2019 PRIMARY 6 SEMESTRAL ASSESSMENT 1

Name \_\_\_\_\_ ( ) Date: 15 May 2019

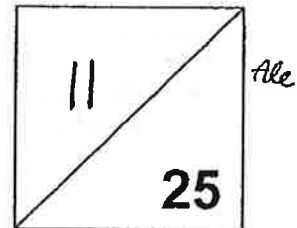
Class : Primary 6

Time: 8.00 a.m. - 9.00 a.m.

Parent's Signature \_\_\_\_\_

Paper 1 comprises 2 booklets, A and B.

### MATHEMATICS PAPER 1 (BOOKLET B)



#### INSTRUCTIONS TO CANDIDATE

1. Write your name, class and register number.
2. Do not turn over this page until you are told to do so.
3. Follow all instructions carefully.
4. Answer all questions.
5. Write your answers in this booklet.
6. You are **not** allowed to use a calculator.

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. Round the product of 5.786 and 100 to the nearest whole number.

Ans: \_\_\_\_\_

---

17. The perimeter of a square is 1 m. Find its area.

Ans: \_\_\_\_\_ m<sup>2</sup>

---

18. In the table below, Ms Tan recorded the number of books her students read in a week.

No. of books read	0	1	2	3	4
No. of students	3	16	10	18	3

How many students read at least 2 books?

Ans: \_\_\_\_\_

---

19. Simplify  $8m - 3 - m + 8$ .

Ans: \_\_\_\_\_

---

20. Express 0.5% as a fraction. Express your answer in the simplest form.

Ans: \_\_\_\_\_

---

Questions 21 to 30 carry 2 marks each. Show your working clearly in the space provided for each question and write your answers in the spaces provided. For questions which require units, give your answers in the units stated. (20 marks)

---

21. Write down all the common factors of 12 and 42.

Ans: \_\_\_\_\_

---

22. After spending  $\frac{1}{5}$  of her money on a handbag and  $\frac{3}{5}$  of her remaining money on a dress, Joanne has \$80 left. How much money did Joanne have at first?

Ans: \$ \_\_\_\_\_

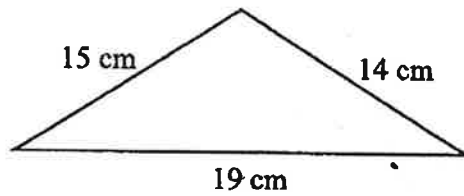
---

23. Jennifer baked 120 tarts. For every 15 tarts, Jennifer used 3 eggs. How many eggs did she use altogether?

Ans: \_\_\_\_\_

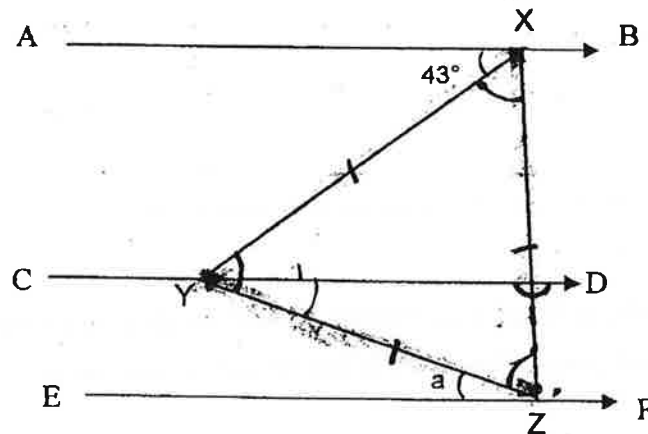
---

24. The perimeter of the triangle shown below is 2 times that of a rectangle. The length of the rectangle is 8 cm. Find its breadth.



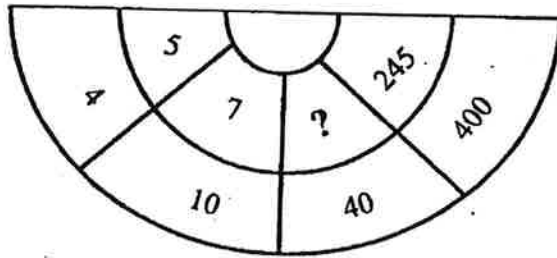
Ans: \_\_\_\_\_ cm

25. In the figure below,  $AB \parallel CD \parallel EF$ .  $XYZ$  is an equilateral triangle. Find  $\angle a$



Ans: \_\_\_\_\_

26. What is the missing number?



Ans: \_\_\_\_\_

---

27. A 8 m piece of string is cut into shorter pieces. Each piece measures  $\frac{3}{4}$  m, except for the last piece. What is the length of the last piece?

Ans: \_\_\_\_\_ m

---

28. At a cafe, Ken paid \$8.20 for a curry puff and 4 almond muffins. Mariam paid \$17.20 for a curry puff and 10 almond muffins. Sheila bought a curry puff. How much did she pay?

Ans: \_\_\_\_\_

---

29. A rectangular tank was half-filled with water. Jeremy realized that he needed another  $332 \text{ cm}^3$  of water to make it  $\frac{3}{5}$  full. How many litres of water would there be in the tank when it was completely full?

Ans: \_\_\_\_\_

---

30. Raymond always saved 45% of his salary. When his salary decreased by 20% in April, his savings decreased by \$180. How much was Raymond's salary before the decrease?

Ans: \$ \_\_\_\_\_

---

End of Booklet B

End of Paper 1





## 2019 PRIMARY 6 SEMESTRAL ASSESSMENT 1

Name \_\_\_\_\_

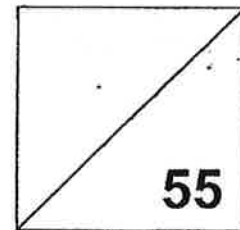
Date: 15 May 2019

Class : Primary 6 (

Time: 10.30 a.m - 12.00 noon

Parent's Signature : \_\_\_\_\_

### MATHEMATICS PAPER 2



#### INSTRUCTIONS TO CANDIDATE

1. Write your name, class and register number.
2. Do not turn over this page until you are told to do so.
3. Follow all instructions carefully.
4. Answer all questions.
5. Show your working clearly as marks are awarded for correct working.
6. You are allowed to use a calculator.

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

---

1. A marking is drawn every  $\frac{1}{10}$  km in a straight foot path that measures  $\frac{4}{5}$  km long. How many markings are there on the foot path, including the one at the start?

Ans: \_\_\_\_\_

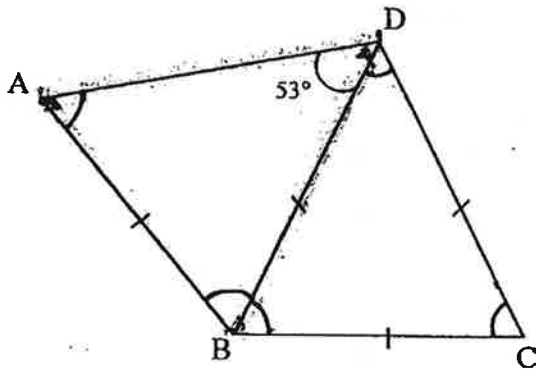
---

2. The ratio of Karl's age to Tim's age is 2 : 3. Karl is 14 years old now. How old was Tim 1 year ago?

Ans: \_\_\_\_\_ years old

---

3. The figure below is not drawn to scale. ABCD is a four-sided figure. BCD is an equilateral triangle. Find  $\angle ABC$ .



Ans: \_\_\_\_\_°

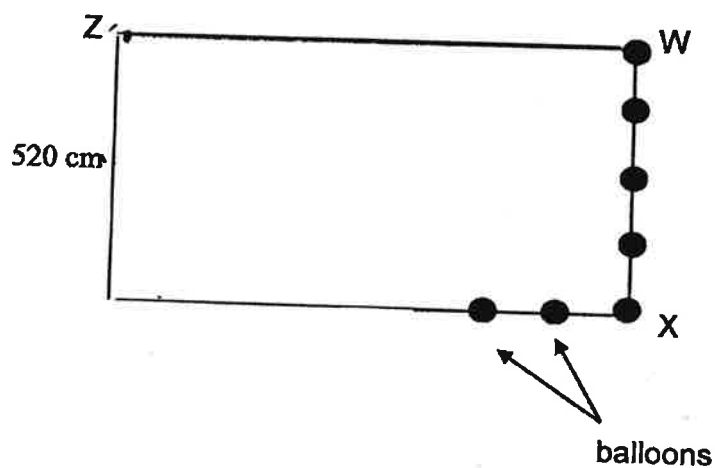
---

4. Lay Kim sold  $(m + 6)$  tickets on Saturday. She sold  $m$  more tickets on Sunday than on Saturday. Altogether, she sold 48 tickets on the two days. Find the value of  $m$ .

Ans: \_\_\_\_\_

---

5. A total of 18 balloons are hung at an equal distance apart along three sides WX, XY and YZ of a rectangular stage. The figure shows part of the set-up. The breadth of the stage is 520 cm. What is the length of the stage?

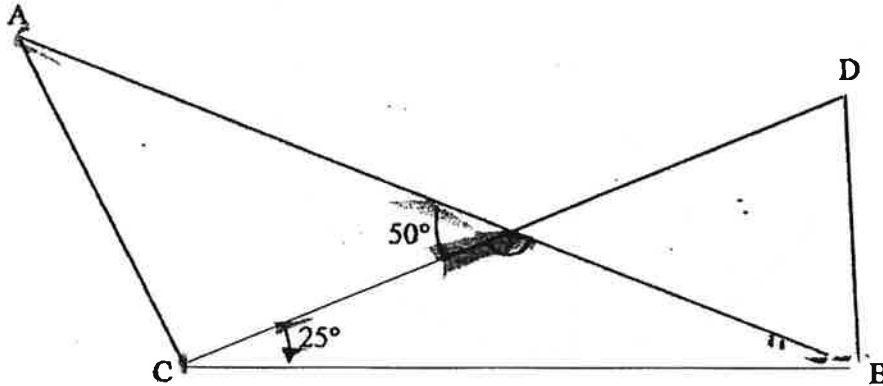


Ans : \_\_\_\_\_ cm

For questions 6 to 17, show your working clearly in the space provided for each question 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.

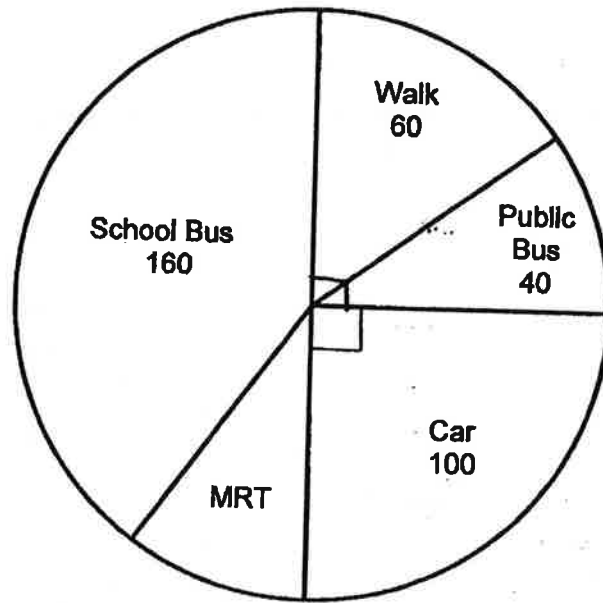
(45 marks)

6. In the figure below, not drawn to scale, AB and CD are straight lines that intersect at Y such that  $CY = YD$ . Find  $\angle CBD$ .



Ans: \_\_\_\_\_ [3]

7. The pie chart below shows the number of students travelling to school by different ways. What percentage of the students travel to school by MRT?



Ans: \_\_\_\_\_ [3]

8. The price of one notebook is \$3.80. When a customer buys 3 such notebooks, he can buy one more notebook at half the price. What is the greatest number of notebooks that a customer can buy with \$80?

Ans: \_\_\_\_\_ [3]

---

9. In January, the ratio of the number of butterflies to the number of bees in a garden was 7 : 3. In February, the butterfly population decreased by 20% while the bee population increased by 30%.
- a) What was the percentage change in the combined butterfly and bee population?
- b) If there were 168 butterflies left in February, what was the butterfly population in January?

Ans: (a) \_\_\_\_\_ [2]

(b) \_\_\_\_\_ [1]

---

10. Madam Lydia bought some white noodles and some yellow noodles. She cooked an equal amount of white and yellow noodles. She had  $\frac{3}{8}$  of the white noodles and  $\frac{3}{4}$  of the yellow noodles left. What fraction of the noodles which Madam Lydia bought was cooked? (Leave your answer in the simplest form.)

Ans: \_\_\_\_\_ [3]

---



11. Mrs Munah used  $\frac{7}{10}$  of a packet of flour to bake some cookies. She then had  $\frac{2}{5}$  kg of flour left.

a) What was the mass of flour in the packet at first? Leave your answer in kg.

b) Given that Mrs Munah used  $\frac{1}{15}$  kg of flour for each cookie, how many cookies did she bake?

Ans (a) \_\_\_\_\_ [2]

(b) \_\_\_\_\_ [2]

12. Jessica bought a dress and a handbag at a discount. She spent a total of \$330 on these two items. She spent \$30 more on the handbag than on the dress.

a) How much did she spend on the handbag?

b) The total discount given for the two items was \$95. She was given a 20% discount for the handbag. What was the percentage discount given for the dress?

Ans: (a) \_\_\_\_\_ [1]

(b) \_\_\_\_\_ [3]

---

13. At a pharmacy, a \$2 voucher was given for every \$15 spent. Mary bought 3 bottles of shampoo and 2 bars of soap. Each bar of soap costs  $\frac{2}{3}$  as much as 2 bottles of shampoo. Mary realised that she had to spend another \$6.45 to get exactly \$8 worth of vouchers. What was the cost of 1 bar of soap?

Ans: \_\_\_\_\_ [4]

14. Thomas had a carton of milk. He drank the same amount of milk everyday. At the end of the 12<sup>th</sup> day, he was left with  $\frac{2}{5}$  of the milk. At the end of the 15<sup>th</sup> day, which was a Tuesday, he was left with 1200ml of milk.

a) What fraction of the milk did he drink each day?

b) From the 16<sup>th</sup> day, he decided to drink twice the amount of milk which he used to drink daily. On which day would he finish the remaining milk?

Ans (a) \_\_\_\_\_ [1]

(b) \_\_\_\_\_ [3]

15. Amanda, Bob and Caren went to a bakery to buy a birthday cake for their mother. They shared the cost of the cake equally. However, Amanda did not bring any money. Bob and Caren paid for the cake first. The ratio of the amount Bob paid to the amount Caren paid was 5 : 3. When they reached home, Amanda returned her share of the bill to Bob and Caren. She paid Bob \$5.60.

- a) How much did Amanda pay Caren?  
b) How much did the birthday cake cost?

Ans: (a) \_\_\_\_\_ [2]

(b) \_\_\_\_\_ [2]

---

16. Isabella saved 2 coins in her new piggy bank each day. Each coin was either a 20¢ or a 50¢ coin. Her father also helped by putting in a \$1 coin in her piggy bank every 7 days. The total amount of money in the piggy bank after 196 days was \$137.90.

a) How many coins were there in the piggy bank altogether?

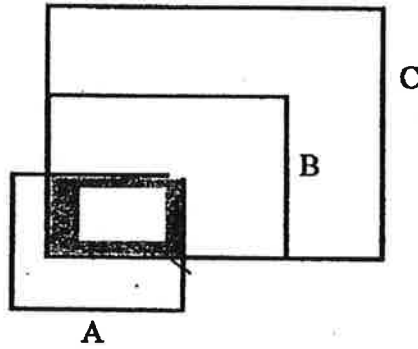
b) How many of the coins were 20¢ coins?

Ans: (a) \_\_\_\_\_ [2]

(b) \_\_\_\_\_ [3]

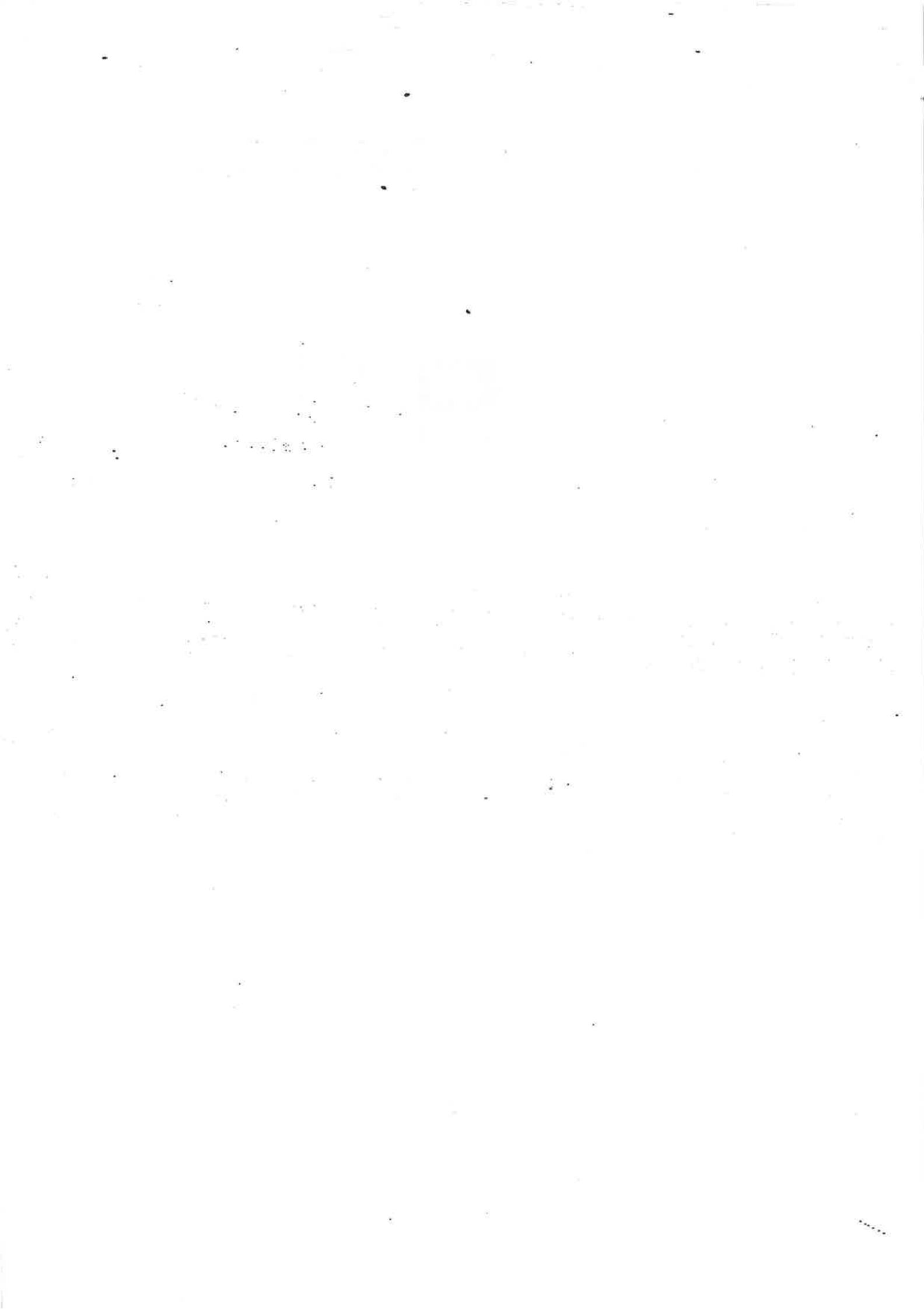
---

17. The figure below is made up of overlapping rectangles, A, B and C. The area of B is twice the area of A and  $\frac{4}{7}$  the area of C.  $\frac{3}{8}$  of B is shaded. The area of A is  $144 \text{ cm}^2$ . Find the unshaded area of the figure.



Ans: \_\_\_\_\_ [5]

End of Paper 2





# ANSWER KEY

YEAR : 2019  
 LEVEL : PRIMARY 6  
 SCHOOL : TAO NAN SCHOOL  
 SUBJECT : MATHEMATICS  
 TERM : SA1



## SECTION A

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

## SECTION B

Q16	579
Q17	$\text{Area} = \frac{1}{4} \times \frac{1}{4}$ $= \frac{1}{16} m^2$
Q18	$10 + 18 + 3 = 31$
Q19	$7m + 5$
Q20	$\frac{0.5}{100} = \frac{1}{2} \div 100$ $\frac{0.5}{100} = \frac{1}{2} \times \frac{1}{100}$ $= \frac{1}{200}$
Q21	1, 2, 3, 6
Q22	<p>Remain <math>\rightarrow 1 - \frac{1}{5} = \frac{4}{5}</math></p> $\frac{2}{5} \times \frac{4}{5} = \frac{8}{25}$ <p><math>8u = \\$80</math></p> <p><math>1u = \\$80 \div 8 = \\$10</math></p> <p><math>25u = \\$10 \times 25 = \\$250</math></p>
Q23	$120 \div 15 = 8$ (8 sets of 15 tarts) $8 \times 3 = 24$
Q24	<p>Total length of triangle <math>\rightarrow 19 + 15 + 14 = 48</math></p> <p>Total length of rectangle <math>\rightarrow 48 \div 2 = 24</math></p> <p>Total length of breath <math>\rightarrow (24 - [2 \times 8]) \div 2 = 4</math></p>
Q25	$\angle DYZ = 60 - 43 = 17$ $\angle a = 17^\circ$
Q26	$5 \times 7 = 35$
Q27	$\frac{3}{4}m = 100 \div 4 \times 3 = 0.75m$ $8m \div 0.75m = 10R0.5$ Answer $\rightarrow 0.5m$

Q28	$17.20 - 8.20 = \$9$ 6muffins = \$9 $1\text{muffin} = \$9 \div 6 = \$1.50$ $4\text{muffins} = \$1.50 \times 4 = \$6$ $\$8.20 - \$6 = \$2.20$
Q29	$\frac{3}{5} - \frac{1}{2} = \frac{6}{10} - \frac{5}{10} = \frac{1}{10}$ $1u = 332\text{cm}^3$ $10u = 3320\text{cm}^3 = 3230\text{ml} = 3.32\text{L}$
Q30	$\$180 \div 20 = \$9$ $\$9 \times 100 = \$900$ (saving) $45\% = \$900$ $1\% = \$900 \div 45 = \$20$ $100\% = \$2000$



### SECTION C

Q1	$\frac{4}{5} \div \frac{1}{10} = \frac{8}{10} \times \frac{10}{1}$ $= \frac{8}{1}$ $= 8 + 1$ $= 9$
Q2	$1u = 14 \div 2 = 7$ $3u = 7 \times 3 = 21$ $21 - 1 = 20$
Q3	$\angle ABD = 180^\circ - 53^\circ - 53^\circ = 74^\circ$ $\angle ABC = 60^\circ + 74^\circ = 134^\circ$
Q4	$2m + m + 6 + 6 = 3m + 12$ $48 - 12 = 36$ $36 \div 3 = 12$
Q5	$520 \div 4 = 130$ $9 \times 130 = 1170$
Q6	$\angle CYB = 180^\circ - 50^\circ = 130^\circ$ $\angle YBC = 180^\circ - 130^\circ - 25^\circ = 25^\circ$ $\angle YBD = (180^\circ - 50^\circ) \div 2 = 65^\circ$ $\angle CBD = 65^\circ + 25^\circ = 90^\circ$
Q7	$100 \times 4 = 400$ $400 - 160 - 60 - 40 - 100 = 40$ $\frac{40}{400} \times 100\% = 10\%$
Q8	$3 \times \$3.80 = \$11.40$ $\$3.80 \div 2 = \$1.90$ $\$11.40 + \$1.90 = \$13.30$ $\$80 \div \$13.30 = 6.015 \approx 6\text{sets}$ $6\text{sets} \times 4\text{notebook} = 24$





**Q15** C : B : Total  $\rightarrow$  5 : 3 : 8  $\rightarrow$  15 : 9 : 24

(a) A : B : C  $\rightarrow$  8 : 8 : 8

$$7u = \$5.60$$

$$1u = \$0.80$$

Answer (a)  $\rightarrow$  \$0.80

$$24 \times \$0.80 = \$19.20$$

Answer (b)  $\rightarrow$  \$19.20

**Q16**  $196 \div 7 = 28$

$$\$137.90 - \$28 = \$109.80$$

Assume all coins 20cents.

$$196 \times 2 = 392$$

$$392 + 28 = 420$$

$$392 \times 0.20 = \$78.40$$

$$\$109.80 - \$78.40 = \$31.50$$

$$\$31.50 \div \$0.30 = 105 \text{ (\$0.30 derive from 50cent minus 20cent)}$$

Answer (a)  $\rightarrow$  105

$$392 - 105 = 287$$

Answer (b)  $\rightarrow$  287

**Q17** A : B  $\leftrightarrow$  B : C

(a)  $1 : 2 \leftrightarrow 4 : 7$

$$2 : 4 \leftrightarrow 4 : 7$$

Therefore,

$$A : B : C$$

$$2 : 4 : 7$$

$$2u = 144\text{cm}^2$$

$$1u = 72\text{cm}^2$$

$$7u = 504\text{cm}^2$$

$$4u = 288\text{cm}^2$$

$$\frac{3}{8} \times 288 = 108$$

$$(504 - 108) + (144 - 108) = 432\text{cm}^2$$

4  
END.