

## **RULANG PRIMARY SCHOOL**

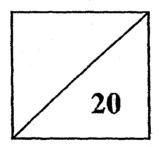
Nurturing Competencies, Inspiring Excellence, Empowering Individuals Scholars of Tomorrow

Established since 1930

Name	:,		( )	Total Marks Paper 1
Level	:	Primary Five		
Class	:	Primary 5		
Date	:	4 May 2018		45
Cattana		Mdm Soiini and Mr Susiavanto		

# SEMESTRAL ASSESSMENT 1 2018 MATHEMATICS

### PAPER 1 BOOKLET A



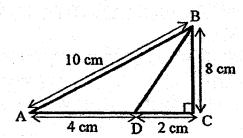
TOTAL TIME FOR PAPER 1 (BOOKLETS A & B): 1 hour 30 questions 45 marks

- DO NOT OPEN THIS BOOKLET UNTIL YOU ARE TOLD TO DO SO.
- READ ALL THE INSTRUCTIONS CAREFULLY.
- ANSWER ALL THE QUESTIONS.
- **YOU ARE NOT ALLOWED TO USE A CALCULATOR.**

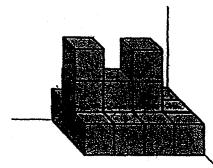
Questions 1 to 10 carry 1 mark each. Questions 11 to 15 carry 2 marks each. For each question, four options are given. One of these is the correct answer. Make your choice (1, 2, 3 or 4) and shade the oval (1, 2, 3 or 4) on the Optical Answer Sheet.

(20 marks)

- 1. What is the value of 740 thousands + 9 hundreds + 5 ones?
  - (1) 74 905
  - (2) 74 950
  - (3) 740 905
  - (4) 740 950
- 2. Find the value of  $40 + 4 \times 6 10 \div 2$ .
  - (1) 27
  - (2) 59
  - (3) 127
  - (4) 259
- 3. Find the value of  $7-2\frac{1}{6}$ .
  - (1)  $4\frac{1}{6}$
  - (2)  $4\frac{5}{6}$
  - (3)  $5\frac{1}{6}$
  - (4)  $5\frac{5}{6}$
- 4. The total mass of Dan's bag and Eric's bag is  $10\frac{3}{7}$  kg. If Dan's bag weighs  $5\frac{2}{3}$  kg, find the mass of Eric's bag.
  - (1)  $4\frac{16}{21}$  kg
  - (2)  $5\frac{5}{21}$  kg
  - (3)  $5\frac{16}{21}$  kg
  - (4)  $5\frac{1}{4}$  kg
- 5. Find the area of Triangle ABD shown below.
  - $(1) 8 cm^2$
  - (2)  $16 \text{ cm}^2$
  - (3)  $20 \text{ cm}^2$
  - (4) 24 cm<sup>2</sup>



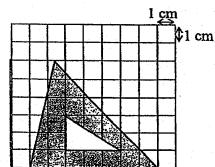
- 6. There were 240 pupils at a concert. The ratio of the number of boys to the number of girls was 3:5. How many boys were there at the concert?.
  - (1) 30
  - (2) 80
  - (3) 90
  - (4) 150
- 7. A ball of string is cut into three pieces in the ratio 3:4:5. The longest piece is 35 cm. Find . the length of the shortest piece of string.
  - (1) 7 cm
  - (2) 21 cm
  - (3) 28 cm
  - (4) 84 cm
- 8. Which one of the following has the same value as  $48 \times 70$ ?
  - (1)  $40 + 8 \times 70$
  - $(2) \quad 48 \times 7 \times 10$
  - $(3) \quad 4 \times 8 \times 7 \times 10$
  - (4)  $40 + 8 \times 7 + 10$
- 9. Find the volume of a cube of edge 7 cm.
  - (1)  $21 \text{ cm}^3$
  - (2)  $49 \text{ cm}^3$
  - (3) 294 cm<sup>3</sup>
  - (4)  $343 \text{ cm}^3$
- 10. The solid below is made up of 1-cm cubes. Find the volume of the solid.
  - (1)  $12 \text{ cm}^3$
  - (2)  $13 \text{ cm}^3$
  - (3) 17 cm<sup>3</sup>
  - (4) 36 cm<sup>3</sup>



- 11. Jake had 18 fewer marbles than Calvin at first. After Jake gave 4 marbles to Calvin, Calvin had twice as many marbles as Jake. How many marbles did Jake have at first?
  - (1) 26
  - (2) 30
  - (3) 48
  - (4) 52
- 12. Mr Tan bought  $\frac{3}{4}$  kg of meat. He cooked  $\frac{2}{3}$  of it. How much meat was left?
  - (1)  $\frac{1}{12}$  kg
  - (2)  $\frac{1}{4}$  kg
  - (3)  $\frac{1}{3}$  kg
  - (4)  $\frac{1}{2}$  kg
- 13. Ain baked some cupcakes. She gave 6 cupcakes to her sister and  $\frac{1}{4}$  of the remaining cupcakes to her friend. She then had 18 cupcakes left. Find the ratio of the number of cupcakes she gave her sister to the total number of cupcakes she baked.
  - (1) 1:3
  - (2) 1:4
  - (3) 1:5
  - (4) 1:6
- 14. Find the total shaded area of the figure below.



- (2)  $18 \text{ cm}^2$
- (3) 21 cm<sup>2</sup>
- (4)  $42 \text{ cm}^2$



- 15. In a farm,  $\frac{5}{9}$  of the animals are cows,  $\frac{1}{4}$  of the remaining animals are goats and the rest are chickens. There are 44 more cows than goats. How many cows are there in the farm?
  - (1) 55
  - (2) 80
  - (3) 99
  - (4) 144



## RULANG PRIMARY SCHOOL

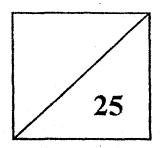
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Name	:	(	)
Level	:	Primary Five	
Class	:	Primary 5	
Date	:	4 May 2018	
Setters	:	Mdm Sajini and Mr Susiayanto	

# SEMESTRAL ASSESSMENT 1 2018 MATHEMATICS

### PAPER 1 BOOKLET B



TOTAL TIME FOR PAPER 1 (BOOKLETS A & B): 1 hour 30 questions 45 marks

- DO NOT OPEN THIS BOOKLET UNTIL YOU ARE TOLD TO DO SO.
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- YOU ARE <u>NOT</u> ALLOWED TO USE A CALCULATOR.

16.	Write thre	e million, eig	tht hundred and	ninety-two thou	usand in numer	als.	
			and the second				
				Ans:	· · · · · · · · · · · · · · · · · · ·		
			**************************************				<del></del>
17.				ter for a sports on number of boxes			
				• •			
			and the second				•
				Ans:			
18.			oooks he sold o	He sold 30 bool on Saturday. Hov			

19. Devi had  $\frac{5}{7}$  m of ribbon. She used  $\frac{1}{4}$  of it to tie a present. What was the length of the ribbon that Devi used to tie the present?

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

20. Terence had a sum of money at first. After spending  $\frac{4}{5}$  of his money, he had \$20 left. How much money did he spend?

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

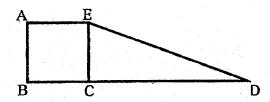
Questions 21 to 30 carry 2 marks each. Show your working clearly in the space below each question and write your answers in the spaces provided. For questions which require units, give your answers in the units stated.

(20 marks)

- 21. Mark travelled  $\frac{1}{5}$  of a journey on foot and  $\frac{3}{4}$  of the remaining journey by train. He cycled the last 11 km to complete the journey.
  - (a) Find the distance he travelled by train.
  - (b) What was the total distance he travelled?

Ans:	(a)			km
		*	-	
	(b)	4.1		 km

- 22. The figure below is made up of a square ABCE and a triangle CDE. The area of the square is 25 cm. The length of CD is three times the length of BC.
  - (a) Find the length of each side of the square ABCE.
  - (b) Find the area of the triangle CDE.



Ans: (a) \_\_\_\_\_ cm

(b) cm<sup>2</sup>

	Ans: (a)	m€
· :		
. :		
•		
•		
	are there in the 2 jars altogether?	
4. Jar A has $\frac{5}{8}$ $\ell$ of orange juice.  (a) How much orange juice	Jar B has 550 ml more orange juice than are there in Jar B?	Jar A.
	(b)	
	Ans: (a)	
	•	

150 pupils took part in a Chess tournament. 45 of the pupils were girls.(a) Find the ratio of the number of boys to the number of girls.(b) Find the ratio of the number of boys to the total number of pupils.

(Express your answers in the simplest form.)

23.

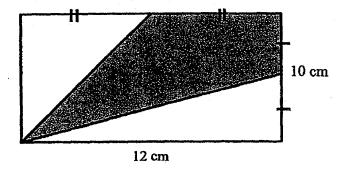
(a) (b)

	two.					
						•
						•
				Ans:		
26.	altogether. Hov	w many cars	are there?	ked at a carpark. Ti	icic is a total (	or 174 wheek
			•			

27.  $\frac{3}{5}$  of the number of pens displayed at a bookshop were red while the rest were blue. After 260 red pens and  $\frac{1}{4}$  of the blue pens were sold,  $\frac{1}{2}$  of the pens were left. How many pens were displayed at the bookshop at first?

Ans:	

28. Find the shaded area of the rectangle.



								1
A na.					-			am
Ans:								cm'
	 	 _						

	ranes than he number tal number
Ans:	

30. Andy and Bryan had an equal number of stamps at first. Andy gave 30 of his stamps to Bryan. Bryan then bought another 16 stamps.

Each statement below is either true, false or not possible to tell-from the information given above. For each statement, put a tick  $(\checkmark)$  in the correct column.

Statements	True	False	Not possible to tell
After Andy had given 30 of his stamps to Bryan, Bryan had 30 more stamps than him.		_	
Bryan had 114 stamps in the end.	•		



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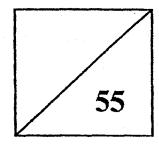
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Level	:	Primary Five			
Class	:	Primary 5			
Date	:	4 May 2018			100
Setters	:	Mdm Saiini and Mr Susiavanto		K	

# SEMESTRAL ASSESSMENT 1 2018 MATHEMATICS

### PAPER 2



TOTAL TIME FOR PAPER 2: 1 hour 30 minutes

- 17 questions
- 55 marks
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Questions 1 to 5 carry 2 marks each. Show your working clearly in the space below each question and write your answers in the spaces provided. For questions which require units, give your answers in the units stated.

(10 marks)

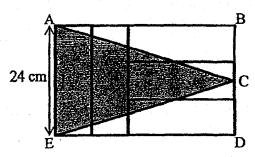
1. Ray and Sarah have a total of 280 stamps in their stamp collections. Sarah and Tom have a total of 120 stamps in their stamp collections. Ray has 5 times as many stamps as Tom. How many stamps does Sarah have?

Ans:\_\_\_\_

2. Mr Chan gave  $\frac{2}{5}$  of his salary to his parents and  $\frac{1}{4}$  of the remainder to his wife. If Mr Chan gave his wife \$1500, how much money did he give his parents?

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

3. In the figure below, Rectangle ABDE is made up of 5 smaller identical rectangles. The length of AE is 24 cm. Find the area of the shaded triangle ACE.



Ans:	cm <sup>2</sup>
------	-----------------

4. Ken, Sam and Ben shared some stickers in the ratio 10:5:3. Ken decided to give Sam and Ben a total of 72 stickers so that all of them would have the same number of stickers in the end. Find the total number of stickers the boys had.

Ans:

5. A fish tank measures 115 cm by 65 cm by 50 cm. Water is poured into the tank until it is  $\frac{4}{5}$  full. Find the volume of water in the fish tank in litres.

ns: \_\_\_\_\_

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 the brackets [ ] at the end of each question or part-question.

(45 marks)

- 6. Mrs Lim gave John and his sister an equal amount of money to spend at a bookshop. John spent all his money on 42 pens at 6 for \$5. His sister bought 8 files and had \$3 left.
  - (a) How much did each file cost?
  - (b) If John decided to buy both pens and files instead, how many pens and files could he buy?

Ans:	(a)_		[1]
	(b)	Pens:	·
		Files:	[2]

- 7. The distance between Benjamin's workplace and his house is  $3\frac{2}{5}$  km. Benjamin cycles to work and back home every day, taking the same route.
  - (a) Last Friday, Benjamin was cycling home from work when one of his bicycle tyres to punctured. He walked the remaining distance of  $1\frac{4}{5}$  km home. How far was he from his workplace when he started walking home?
  - (b) What was the total distance he cycled that day?

Ans:	(a)			
		•		
	(b)	•	[2	

	nt of 16 cm. When 3 ic rose to 24 cm. Find the volume of wa What was the capacity	ater in the rec	tangular wa		· .
• •		- -			
•	·				
				•	

Ans: (a)\_

Mee: 3:1.	a was	18 year	s old tw	o years ago.	The ratio	of her	age to h	er sister's a	ge then w
(a) (b)	How Find	old was their tota	Meera's Il age no	sister two ye	ears ago?				
								•	
								•	
								•	
					A	(c)			· rı
					Ans:	(a)			[]
						(b)	·-		[2

- 10. A group of pupils was divided equally into Team P and Team Q during a sports carnival. The ratio of the number of boys to the number of girls in Team P was 1:3 and the ratio of the number of boys to the number of girls in Team Q was 5:7.
  - (a) Find the ratio of the number of boys to the number of girls who took part in the sports carnival.
  - (b) There were 24 more girls than boys at the carnival. How many pupils were at the carnival?

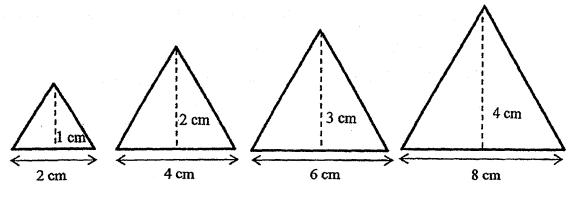
Ans:	(a)	[1]
	(b)	[2]

- 11. Andy and Jennifer collected \$1328 for charity.  $\frac{2}{3}$  of the amount of money Andy collected was equal to  $\frac{6}{7}$  of the amount of money.
  - (a) How much money did Andy collect?
  - (b) How much more money should Jennifer collect so that she would have twice the amount of money Andy had collected?

Ans:	(a)			
	(b)		[2]	

(a) (b)	How many days will he ta His sister reads the same complete reading the book	book for	mplete reading 6 days a week	the book? c. How ma	ny weeks w	rill she take t

- Look at the patterns shown below. 13.
  - (a)
  - Find the area of the triangle in the 6<sup>th</sup> pattern. Find the total area of the triangles in the first 10 patterns. (b)



Pattern 1

Pattern 2

Pattern 3

Pattern 4

[1]

[3]

- 14. Boxes kept in a warehouse are in 3 different sizes, large, medium and small.  $\frac{4}{9}$  of the boxes are medium and  $\frac{2}{5}$  of the boxes are small. There are 528 more small boxes than large boxes.
  - (a) What fraction of the boxes are large boxes?
  - (b) What is the total number of number of boxes kept in the warehouse?

Ans:	(a)	[1]	Ì

(b) [3

- 15. Kenneth mixed orange syrup and water in the ratio 2 : 5 to make a drink. He used 670 ml of orange syrup to make the drink.
  - (a) How many millilitres of drink did Kenneth make?
  - (b) After making the drink, Kenneth gave 250ml of it to his sister and drank <sup>2</sup>/<sub>5</sub> of the remaining drink. He then poured the rest of the drink equally into 3 cups.
    How much drink was there in each cup?(Give your answer in millilitres)

Ans: (a)	(a)				
	•	[1]			
(b)	· ·	[4]			

- 16. Hamid saved some 20-cent coins and 50-cent coins in the ratio 3: 4. His father replaced  $\frac{1}{3}$  of the 20-cent coins with the same number of 50-cent coins. The amount of money Hamid had increased by \$4.50.
  - (a) How many 20-cent coins were replaced with 50-cent coins?
  - (b) How much money did Hamid save at first?

Ans:	(a)	[1]
	ax	141
	(b)	[4]

- 17. There were thrice as many red roses as white roses in a carton. After  $\frac{1}{4}$  of the red roses and  $\frac{3}{8}$  of the white roses were taken out, there were 351 fewer white roses than red roses left in the carton.
  - (a) What fraction of the roses were left in the carton?
  - (b) How many white roses were in the carton at first?

Ans: (a) [1]

Ans: (b) [4]

SCHOOL :

**RULANG PRIMARY SCHOOL** 

LEVEL

PRIMARY 5

SUBJECT:

MATH

TERM

2018 SA1

### PAPER 1 BOOKLET A

	Q 1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10
1	3	2	2	1	2	3	2	2	4	3

2	2	3	2	1
0.11	012	013	014	015

 $\frac{1}{2} \times 15 \times 5 = 31 \ cm^2$ 

a) 150 - 45 = 105 Boys: Girls 105: 45 7: 3 b) Boys: Pupils 105: 150 21: 30 7: 10

#### PAPER 1 BOOKLET B

Q23)

Q16)	3 892 000		
Q17)	427 ÷ 20 = 21 R 7		
	21 + 1 = <b>22</b>		
Q18)	30 x 3 = 90		7
	90 + 30 = 120		
	360 <b>–</b> 120 <b>= 240</b>	•	
Q19)	$\frac{1}{4} = \frac{5}{20}$	-	
Q20)	20 x 4 = <b>80</b>		•
Q21)	a) 11 x 3 = <b>33</b> km b) 11 x 5 = <b>55</b> km		-
Q22)	a) 25 = 5 x 5  The length of each side of square ABCE is <b>5 cn</b> b) 5 x 3 = 15	n.	

Q24)

a) A 
$$\Rightarrow \frac{5}{8} = \frac{625}{1000} = 625 \text{ ml}$$
  
B  $\Rightarrow 625 + 550 = 1175 \text{ ml} = 1 \text{ litre } 175 \text{ ml}$ 

b) 625 + 1175 = 1800 1800 ml = **1 litre 800 ml** 

Q25) 5.....95

$$95 - 5 + 1 = 91$$

$$91 - 1 = 90$$

$$90 \div 2 = 45$$

$$4 \times 100 = 4500$$

4500 + 50 = 4550

Q26) 1 car  $\rightarrow$  4 wheels

1 motorcycle → 2 wheels

Assuming all are motorcycles:

 $54 \times 2 = 108$ 

Excess  $\rightarrow$  174 – 108 = 66

Difference  $\rightarrow 4 - 2 = 2$ 

No. of cars  $\rightarrow$  66 ÷ 2 = 33

Q27)  $10 \div 2 = 5$ 

$$260 \div 4 = 65$$

 $65 \times 10 = 650$ 

Q28)  $10 \div 2 = 5$ 

$$\frac{1}{2}$$
 x 12 x 5 = 30

$$12 \div 2 = 6$$

$$\frac{1}{2}$$
 x 6 x 10 = 30

$$10 \times 12 = 120$$

$$30 + 30 = 60$$

 $120 - 60 = 60 \ cm^2$ 

Q29) On Saturday  $\rightarrow$  140 – 25 = 115

On Sunday  $\rightarrow$  115 + 15 = 130

Meg: Jenny: Total

140: 130: 270

14: 13:27

Q30) False, Not possible to tell

#### PAPER 2

Q1) 280 - 120 = 160 $160 \div 4 = 40$ 

120 - 40 = 80

Q2)  $1500 \times 4 = 6000$ 

 $6000 \div 3 = 2000$ 

2000 x 2 = 4000

He gave his parents \$4000.

Q3)  $24 \div 3 = 8$ 

24 + 8 + 8 = 40

 $\frac{1}{2}$  x 24 x 40 = 480

Area of the shaded triangle ACE is 480 cm2

Q4) Ken: Sam: Ben

10:5:3

10 + 5 + 3 = 18

 $18 \div 3 = 6$ 

10 - 6 = 4

4 units  $\rightarrow$  72

1 unit  $\rightarrow$  72 ÷ 4 = 18

 $18 \times 18 = 324$  stickers

Q5)  $115 \times 65 \times 50 = 373750$ 

 $373750 \div 5 = 74750$ 

74 750 x 4 = 299 000

299 000  $cm^3$  = 299 litre

Q6) a)  $42 \div 6 = 7$ 

 $7 \times 5 = 35 \text{ (john)}$ 

35 - 3 = 32

 $32 \div 8 = 4 \text{ (Ans : $4)}$ 

b) 4 + 5 = 9

 $35 \div 9 = 3 R 8$ 

 $4 \times 2 = 8$ 

Files  $\rightarrow$  3 + 2 = 5

Pens  $\rightarrow$  3 x 6 = **18** 

Q7) a) 32/5 - 14/5 = 13/5 km b) 32/5 + 13/5 = 5 kmQ8) a)  $38 \text{ cm } \times 38 \text{ cm } \times 16 \text{ cm} = 21.888 \text{ } cm^3$ b) 38 x 36 x 24 = 32 832 32 832 - 21 888 = 10 944  $10\ 944 \div 3 = 3648\ cm^3$ Q9) a) Two years ago Meera: Sister 3 : 1  $18 \div 3 = 6$  years old b) 18 + 2 = 206 + 2 = 820 + 8 = 28 years old Q10) Team P a) Team Q Boys: Girls: Total Boys: Girls: Total 3 : 4 5 7 12 9 : 12 7 12 Total Boys: Total Girls 16 1 2 (Ans) b) 2-1=12 + 1 = 3 $3 \times 24 = 72$  pupils · Q11) a) 9 + 7 = 16 $1328 \div 16 = 83$  $83 \times 9 = 747$ Andy collected \$747. b) 742 x 1494  $83 \times 7 = 581$ Collect more  $\rightarrow$  \$1491 – \$581 = **\$913** 

Q12) a) 
$$365 \div 7 = 52 R 1$$

52 + 1 = 53 (Ans: 53 days)

b) 
$$6 \times 7 = 42$$

365 ÷ 42 = 8 R 29

Ans: 9 weeks

#### Q13) a)

Pattern 1	½ x 2 x 1 = 1	
Pattern 2	$\frac{1}{2} \times 4 \times 2 = 4 (2 \times 2)$	
Pattern 3	½ x 6 x 3 = 9 (3 x 3)	-
Pattern 4	½ x 8 x 4 = 16 (4 x 4)	

Pattern  $6 \rightarrow 6 \times 6 = 36$ 

b) Total area 
$$\rightarrow$$
 1 + 4 + 9 + 16 + 25 + 36 + 49 + 64 + 81 + 100 = 385 cm<sup>2</sup>

a) 
$$\frac{4}{9} = \frac{20}{45}$$

$$\frac{2}{5} = \frac{18}{45}$$

$$\frac{20}{45} + \frac{18}{45} = \frac{38}{45}$$

$$45 - 38 = 7$$

 $\frac{7}{45}$  of the boxes are large boxes.

b) 
$$18 - 7 = 11$$

$$528 \div 11 = 48$$

$$48 \times 45 = 2160$$

The total numver of boxes kept in the warehouse is 2160.

### Q15) a) Orange syrup: water

$$670 \div 2 = 335$$

$$2 + 5 = 7$$

$$335 \times 7 = 2345 \text{ ml}$$

b) 
$$2345 - 250 = 2095$$

$$2095 \div 5 = 419$$

$$419 \times 2 = 838$$

$$2095 - 838 = 1257$$

$$1257 \div 3 = 419 \text{ ml}$$

$$0.50 - 0.20 = 0.30$$

$$4.50 \div 0.30 = 15$$

15 20-cent coins were replaced with 50-cent coins.

b) 
$$\frac{1}{3} \div 3 = 1$$

2 units = 
$$15 \times 3 = 45$$

$$45 \times 0.20 = 4 \times 15 = 60$$

$$60 \times \$0.50 = \$30$$

$$24 \div 4 = 6$$
 (number of units taken out for red roses)

$$24 - 6 = 18$$
 (number of units left for red roses)

$$8 - 3 = 5$$
 (number of units left for white roses)

$$18 + 5 = 23$$

b) 
$$18 - 5 = 13$$

$$351 \div 13 = 27$$

$$27 \times 8 = 216$$
 white roses