

**Primary Six
Mathematics
Continual Assessment Two**

Section A

For each of the following questions, four options are given. Choose the correct answer and write in the space given. Questions 1 to 5 carry 1 mark each and questions 6 to 15 carry 2 marks each.

1. 0.678 expressed as a percentage is _____.

- (1) 0.678%
(3) 67.8%

- (2) 6.78%
(4) 678%

2. There are 42 pupils in a class. 30 of them are boys. Find the ratio of the number of boys to the number of girls.

- (1) 2 : 7
(3) 5 : 2

- (2) 2 : 5
(4) 7 : 2

3. Simplify the expression $(7x - 3) - 2x + 4$.

- (1) $9x + 1$
(3) $5x + 1$

- (2) $9x - 7$
(4) $5x - 7$

4. Find the suitable algebraic expression that matches the condition: "the product of 12 and k".

- (1) $12k$
(3) $12/k$

- (2) $k/12$
(4) $12 - k$

5. In the expression $a = 3b/2 + 24$, what is the value of a if $b=4$?

- (1) 28
(3) 36

- (2) 30
(4) 41

6. A dozen pens cost \$3. For every 4 dozens you buy, you get one pencil free. Andrea pays \$78. How many pens does she get in all?

- (1) 311
(3) 318

- (2) 312
(4) 319

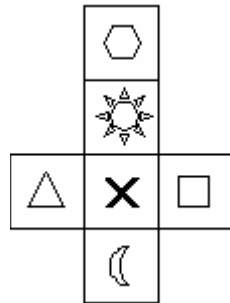
7. The table shows how B increases A. Which of the following is the correct algebraic expression of the relationship?

X	1	2	3	4
Y	1	3	5	7

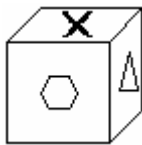
- (1) $Y = 2X - 1$
(3) $X = 2Y + 1$

- (2) $Y = 2X + 1$
(4) $X = 2Y - 1$

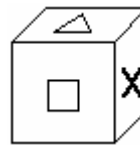
8. The net of a cube is given below. Find the cube.



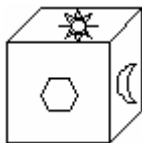
(1)



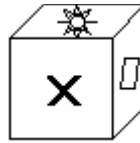
(2)



(3)



(4)



9. Fred and George were given a sum of money in the ratio 3 : 4. Fred spent 50% of his share on a toy which cost \$30. How much was George's share?

- (1) \$30
- (3) \$80

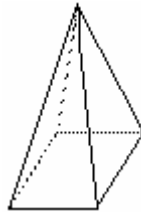
- (2) \$40
- (4) \$90

10. Lisa spent \$30 of her salary and had \$1750 left. What was her salary?

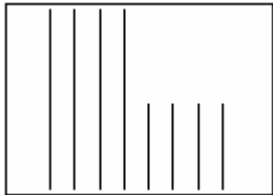
- (1) \$750
- (3) \$2050

- (2) \$1500
- (4) \$2500

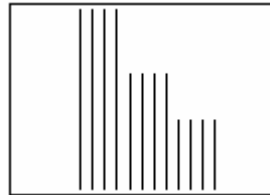
11. Which of the following sets of sticks can form the solid figure given below?



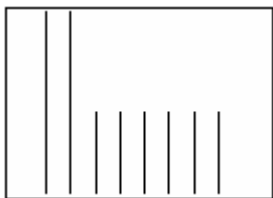
(1)



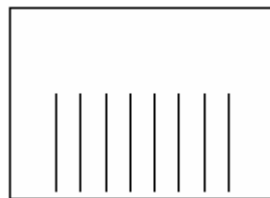
(2)



(3)



(4)



15. A box contained green, blue and yellow marbles. The ratio of the number of green to blue marbles was 3 : 2. Half of the total number of marbles were yellow. What was the ratio of the number of green to yellow marbles?

(1) 2 : 5

(2) 3 : 4

(3) 3 : 5

(4) 3 : 10

Section B (20 x 1 marks)

For each of the following questions, write down your answers in the space given. Give your answers in their simplest form in the correct units.

16. Find the value of $19 + (12 - 5 \times 2) \div 2$.

17. 20% of $60 = \frac{3}{8}$ of _____.

18. In a box, the ratio of the number of tomatoes to carrots was $5 : 3$. If there were 15 carrots, how many tomatoes and carrots were there altogether?

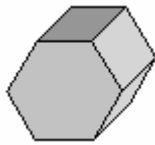
19. Jason's weight was 80% of James. Find the ratio of James' weight to Jason's weight.

20. 5 girls had an average of 16k cookies and another 7 girls had an average of 4k cookies. Express the average number of cookies that the 12 girls had in terms of k.

21. The ratio of the ages of Weiqi and Weihao was 5 : 3. If Weiqi was 12 years older than Weihao, how old was Weiqi?

22. A 36 cm long rope was cut into 3 pieces in the ratio 4 : 2 : 3. What was the length of the shortest piece?

23. Study the following solid.



How many faces does the solid have?

24. How many tenths are there in $15\frac{2}{5}$?

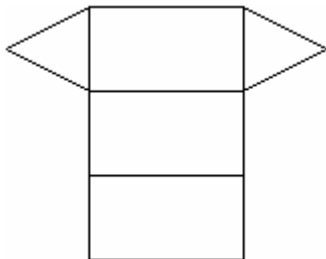
25. Fatimah's weight to her father's weight was in the ratio 3 : 7. What was the difference in their weight if Fatimah was 27 kg?

26. The ratio of the number of female workers to the number of male workers in a factory was 5 : 3. If there were 160 female workers, how many more female workers than male workers were there?

27. There are 35 students in a class. If there were 7 more girls than boys, find the ratio of the number of boys to the number of girls.

28. Michelle saved 30% of her pocket money every month. If she saved \$120 from January to May, how much pocket money did she receive every month?

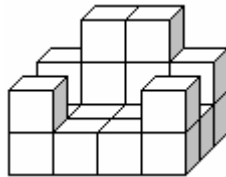
29. Identify the solid shown below.



30. A number is between 30 and 40. When its digits are reversed, a new number is formed. The difference between the new number and the original number is 27. What is the original number?

31. A piece of wire was bent to form the sides of a triangle in the ratio 5 : 7 : 3. If the shortest side was 15cm, what was the length of **two** such wires?

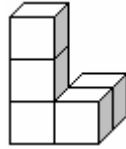
32. How many small cubes are needed to build this solid below?



33. There were 120 viewers watching a movie in a cinema. 30% of them were children while the rest were adults. If 75% of the adults were men, how many women were watching the movie?

34. There are 150 vehicles at a carpark. 20% of them were motorcycles while the rest were cars. If 30 more cars entered the carpark, what percentage of the vehicles was motorcycles?

35. The figure below shows a solid consisting of 5 white cubes. The whole figure is painted yellow. If the cubes are taken apart, how many cubes will have only **four** yellow faces?



Section C (55 marks)

For the following questions, write down your answer in the space given and show all your working clearly. The number of marks allocated to each question is indicated at the end of each question.

36. $\frac{1}{2}$ of Eric's weight is equal to $\frac{2}{3}$ of Samantha's weight. Find the ratio of Eric's weight to Samantha's weight. (2 marks)

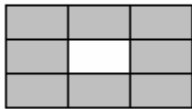
37. Danny gave $\frac{1}{6}$ of his salary to his mother and spent 15% of the remainder. If he had \$1870 left, how much was his salary? (2 marks)

38. $A + B = C$

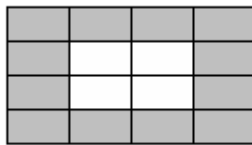
A, B and C represent different numbers from 1 to 9. How many different pairs of numbers are there for A and B if C is an even number? (2 marks)

39. A wall was created using clear and patterned tiles.

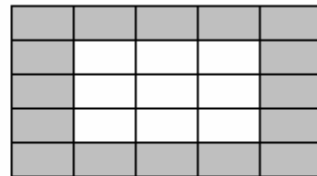
(a) How many clear tiles are needed to make an n-patterned featured wall?



Pattern 1



Pattern 2



Pattern 3

Give your answer in terms of n. (2 marks)

(b) How many clear tiles are needed to make a 52-patterned featured wall? (1 mark)

40. Alice, Ben and Carol shared a sum of money. Ben's share was 60% of Alice's. Carol's share was \$70 more than Ben's. If Ben and Carol had \$574 together, what was the total sum of money the three children had? (3 marks)

41. Last year, the ratio of the number of boys to the number of girls in the school orchestra was 1 : 2. This year, 80 new members joined the orchestra and there are now 3 times as many boys and two times as many girls as last year. How many members were there in the orchestra last year? (3 marks)

42. 14 years ago, Julie's age was thrice of Linda. Their total age is 44 now. What is Julie's present age? (4 marks)

43. $\frac{1}{6}$ of a pole was painted red. The remaining length was painted blue and yellow in the ratio 4 : 3. If the portion painted yellow was longer than the portion painted red by 4 metres, how long was the pole? (4 marks)

44. Melissa and Natalie had \$3134 altogether. Natalie and Oswald had \$1869 altogether. Oswald had $\frac{4}{9}$ times as much money as Melissa. How much **more** did Oswald have than Natalie? (4 marks)

45. June, Kelly and Lisa shared a certain number of sweets in the ratio 3 : 5 : 4. If Kelly gave Lisa 4 sweets, then they both would have the same number of sweets. Find the total number of sweets that was shared among the 3 girls. (4 marks)

46. A discount of 20% on all bags and wallets were offered during a sale. Helen bought 3 bags. The normal price of each bag was 60% more than the normal price of each wallet. If the normal price of each wallet was \$40, how much did Helen pay for the bags? (4 marks)

47. Before a game, the ratio of the number of chips Tan, Ho and Lim had was 3 : 5 : 4. Tan lost half of his chips to Ho. Ho lost 12 chips to Lim who then had twice of what Tan had at the end of the game.
- (a) How many chips did Tan have before the game? (2 marks)
 - (b) How many chips did Lim have at the end of the game? (1 mark)
 - (c) How many more chips did Ho have as compared to Lim after the game? (2 marks)

48. Agnes baked some pies. She gave $\frac{1}{4}$ of the pies to her relatives and $\frac{1}{6}$ of the remainder to her neighbours. She kept 15 of the pies for herself. After selling $\frac{1}{2}$ of the remaining pies, she found that she had only 75 pies left. How many pies did she bake altogether? (5 marks)

49. Tina, Justin, Grace and Abby had the same number of stamps.
Tina gives Justin 3 stamps and Abby 17 stamps.
Abby gives 14 stamps to Tina.
Justin gives 25 stamps to Grace.
Grace gives 9 and 11 stamps to Tina and Justin respectively.

Who will have the most number of stamps in the end? (5 marks)

50. In 2002, Daniel's monthly income was \$1600 for the first 6 months. It was 25% less for the rest of the year. His total income was 25% more than his total income in 2001. Find his total monthly income in 2001. (5 marks)