

<b>Student Name:</b> _____	<b>Grade:</b> _____
<b>Date:</b> _____	<b>Score:</b> _____

- Answer the questions in the spaces provided on the question sheets.
- If you run out of room for an answer, continue on the back of the page.
- This test has 60 questions, for a total of 100 marks.
- Do not use a calculator.
- Attempt all 60 questions.
- Time allowed: 60 minutes.

Page:	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	Total
Marks:	5	5	4	6	10	10	10	4	6	10	10	6	4	6	4	100
Score:																

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## 4 Year 7 Term3 Test

### 4.1 Numbers (1 through 8)

1. Express the following number in Hindu-Arabic: [1]

$M\bar{V}DXXII =$  \_\_\_\_\_

1. \_\_\_\_\_

2. Find the sum of the first fifty even numbers? [1]

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

2. \_\_\_\_\_

3. The product of four prime numbers is 1155. If the sum of two of these primes is 18, find the sum of the other two? [1]

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

3. \_\_\_\_\_

4. 130% of a number is the same as adding 11.4 to 35% of the number. What is the number? [1]

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

4. \_\_\_\_\_

5. The average of 12, 25, 32, and  $x$  is 18. Find the value of  $x$ . [1]

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

5. \_\_\_\_\_

6.  $10^2 \div 5^2 + 3 \times 3^4 + 10 \times (12 + 4) =$

[1]

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6. \_\_\_\_\_

7. The ratio of two natural numbers is 3 : 2 and they are both multiples of 6. If we divide them by 6, the first quotient is 4 greater than the second quotient. What are the two numbers? [2]

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7. \_\_\_\_\_

8. Alice, Emma and Kathy have a total of \$1125. Emma's savings are twice that of Alice's and Kathy savings are thrice that of Emma's. How much more has Kathy than Alice? [2]

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8. \_\_\_\_\_

**4.2 Geometry (9 through 15)**

9. How many diagonals can be drawn in a regular hexagon? [1]

\_\_\_\_\_

\_\_\_\_\_

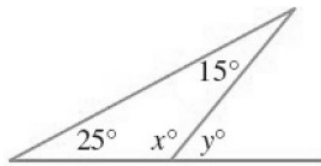
\_\_\_\_\_

9. \_\_\_\_\_

10. In any triangle, the longest side is opposite the \_\_\_\_\_ angle [1]  
and the \_\_\_\_\_ side is opposite the smallest angle.

10. \_\_\_\_\_

11. Find the value of each of these: [1]



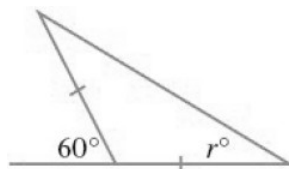
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11. \_\_\_\_\_

12. Find the value of each of these: [1]



\_\_\_\_\_

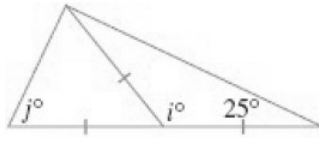
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\_\_\_\_\_

12. \_\_\_\_\_

13. Find the value of the pronumerals in the following figure:

[1]




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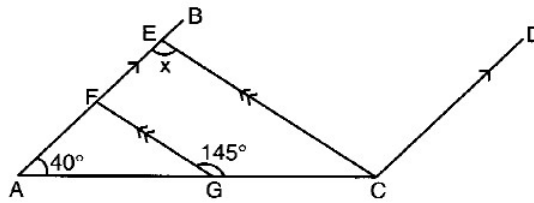


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13. \_\_\_\_\_

14. Find the value of the pronumeral in the following figure:

[2]




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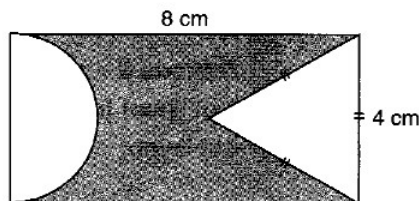


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14. \_\_\_\_\_

15. The figure shown below is made up of a rectangle, a semi-circle and an equilateral triangle. Find the perimeter of the shaded part. ( $\pi = 3.14$ )

[3]




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15. \_\_\_\_\_

**4.3 Time and Date (16 through 20)**

16. What is the time 42 minutes after quarter past eleven? [1]

\_\_\_\_\_

16. \_\_\_\_\_

17. What is the length of time, in hours and minutes, from:  
(a) 9:15 p.m. Sat to 6:30 a.m. Sun? [1]

(a) \_\_\_\_\_

- (b) 10:30 a.m. Wed to 1:10 p.m. Thurs? [1]

(b) \_\_\_\_\_

18. The hands of a clock are at 12 noon. What time will it be when the minute hand has travelled  $510^\circ$ ? [2]

\_\_\_\_\_  
\_\_\_\_\_

18. \_\_\_\_\_

19. A cyclist left home at quarter past 6 a.m. and travelled at an average speed of 18 km/h until he reached the destination which was 63 km away. At what time did he reach the destination? [2]

\_\_\_\_\_  
\_\_\_\_\_

19. \_\_\_\_\_

20. A certain clock loses five minutes every hour. One day this clock is set to the correct time at 10:10 a.m. What will be the correct time when the clock first shows 12:00 on the same day? [3]

\_\_\_\_\_  
\_\_\_\_\_

20. \_\_\_\_\_

**4.4 Fraction and Decimals (21 through 27)**

21. Write 0.003 as a simple fraction: [1]

21. \_\_\_\_\_

22. Simplify  $\frac{72}{5}$  [1]

22. \_\_\_\_\_

23.  $1\frac{2}{3} + 2\frac{3}{5} =$  [1]

23. \_\_\_\_\_

24. What number should be fit in the box to make this sentence true.  $\frac{5}{9} = \frac{115}{200 + \boxed{?}}$  [1]

\_\_\_\_\_

\_\_\_\_\_

24. \_\_\_\_\_

25. What is the difference between the largest number and the smallest number?  $\frac{1}{5}$ , 0.25,  $\frac{1}{8}$  and  $\frac{5}{8}$  [2]

\_\_\_\_\_

\_\_\_\_\_

25. \_\_\_\_\_

26.  $\frac{2x+3}{2} = \frac{2x-4}{3}$  [2]

\_\_\_\_\_

\_\_\_\_\_

26. \_\_\_\_\_

27. A box contained red and blue beads.  $\frac{1}{3}$  of the red beads and  $\frac{1}{4}$  of the blue beads were used to make a purse. If 30 beads of each colour were left, what fraction of the beads in the box were used to make the purse? [2]

\_\_\_\_\_

\_\_\_\_\_

27. \_\_\_\_\_

**4.5 Algebra (28 through 34)**

28.  $4x - 8y + 2z - 12x + 2y + 6x - 6z =$  \_\_\_\_\_ [1]

\_\_\_\_\_

28. \_\_\_\_\_

29. Find the product of  $12a$  and  $5ab$ . [1]

\_\_\_\_\_

29. \_\_\_\_\_

30.  $a^6 \times a^4 \div a^5 =$  \_\_\_\_\_ [1]

30. \_\_\_\_\_

31. Find the quotient of  $12ab$  and  $3b$ . [1]

\_\_\_\_\_

31. \_\_\_\_\_

32. Find the value of  $4a - 5b^2 + 5c$  when  $a = 5$ ,  $b = 6$  and  $c = 12$ . [2]

\_\_\_\_\_

\_\_\_\_\_

32. \_\_\_\_\_

33. Two more than six times a number is equal to the number increased by 17. What is the number? [2]

\_\_\_\_\_

\_\_\_\_\_

33. \_\_\_\_\_

34. The greater of two numbers is 9 less than nine times the smaller number. Their sum is 41. Find the numbers. [2]

\_\_\_\_\_

\_\_\_\_\_

34. \_\_\_\_\_



**4.6 Shape and Graphs (35 through 38)**

35. How many lines of symmetry does a regular octagon have? [2]

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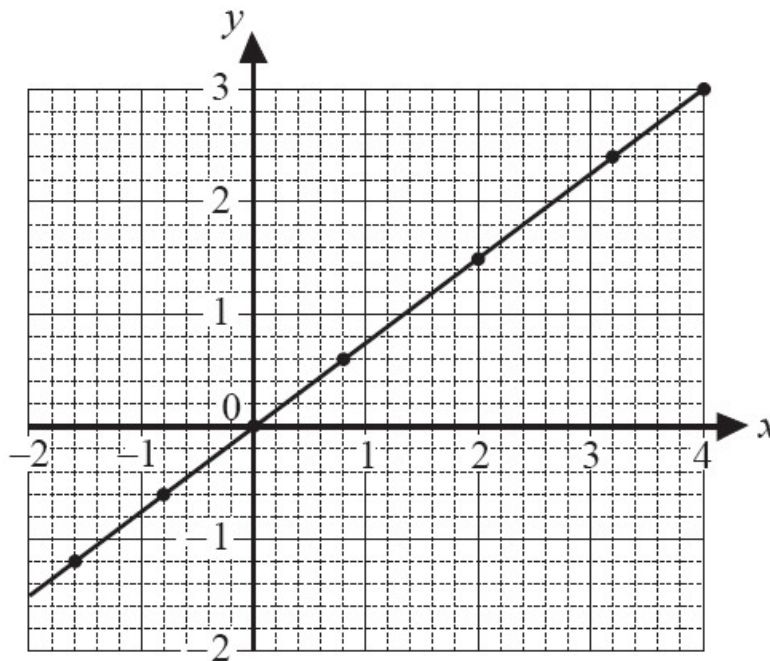


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35. \_\_\_\_\_

36. Read the data from the graph. Write corresponding value for the x and y in the table and hence find the rule. [2]

x	0						
y	0						




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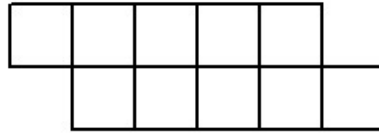


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36. \_\_\_\_\_

37. How many rectangles does this figure have?

[3]




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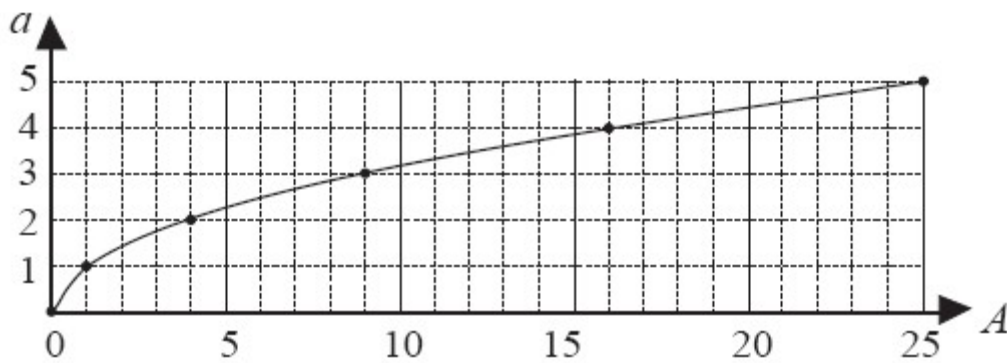
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37. \_\_\_\_\_

38. Read the corresponding value from the graph and complete the table and hence find the rule.

[3]

$a$	0	1	2	3		5
$A$	0					




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38. \_\_\_\_\_

**4.7 Equations and Inequations (39 through 44)**

39. Solve the equation  $3x + 8 = -16$ .

[1]

39. \_\_\_\_\_

40. Solve the equation  $\frac{x}{2} + 12 = \frac{x}{3}$

[1]

40. \_\_\_\_\_

41.  $x - (-63) \leq -17 =$  \_\_\_\_\_

[2]

41. \_\_\_\_\_

42.  $5(3x - 9) + 2(8 + x) = 39$

[2]

42. \_\_\_\_\_

43.  $9(2x + 3) - 8(6x) = -93$

[2]

43. \_\_\_\_\_

44. A 240 cm length of wire was cut into three pieces. The shortest and longest pieces were each 30 cm longer or shorter than the third piece. What was the length of the third piece of wire?

[2]

44. \_\_\_\_\_

**4.8 Directed Number (45 through 50)**

45.  $(-9) + (-4) =$

[1]

45. \_\_\_\_\_

46.  $(-6) - (-3) + (-12) =$

[1]

46. \_\_\_\_\_

47.  $(-12) \div (-3) \times 6 =$

[2]

47. \_\_\_\_\_

48.  $16 \div (-4) + (-24) \times 2 =$

[2]

48. \_\_\_\_\_

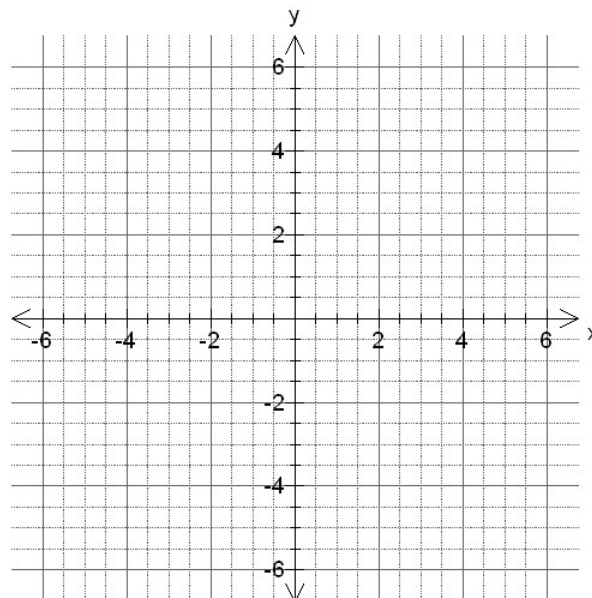
49. The temperature at noon was  $8^{\circ}\text{C}$ . If it fell  $2^{\circ}$  every hour for the next 6 hours. Find the temperature at 6 p.m.

[2]

49. \_\_\_\_\_

50. By first plotting the ordered pairs  $P(-5, -1)$  and  $Q(3, 5)$  Write down the ordered pair for the mid-point of the line joining P and Q.

[2]



50. \_\_\_\_\_

**4.9 Measurements (51 through 55)**

51. The perimeter of an isosceles triangle is 36.8 cm. The length of the base side is 2 third of the length of the adjacent side.

(a) What length are the sides of the triangle? [1]

\_\_\_\_\_

\_\_\_\_\_

(a) \_\_\_\_\_

(b) What is the ratio of the 3 sides? [1]

\_\_\_\_\_

\_\_\_\_\_

(b) \_\_\_\_\_

52. A square based prism has a surface area of  $80 \text{ cm}^2$ . Find the another side if the square has a dimension of 4 cm by 4 cm. [2]

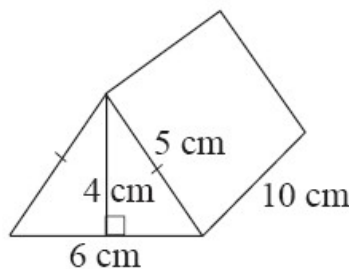
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\_\_\_\_\_

52. \_\_\_\_\_

53. Find the surface area and volume of the following prism: [2]



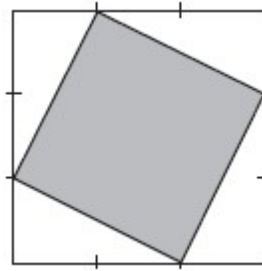
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53. \_\_\_\_\_

54. In the diagram shown below, the sides of the large square are 3 cm long. The sides of the large square have been divided into 3 equal parts and some of the dividing points have been joined up. What is the area of the shaded square? [2]




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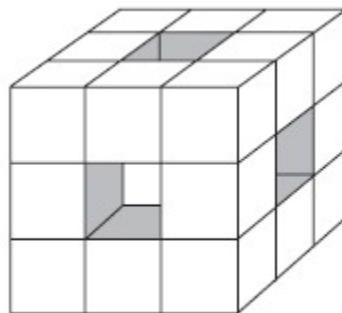
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54. \_\_\_\_\_

55. Imagine a cube built from 27 small 1 cm cubes. The middle cube in each face is removed and so is the small cube at the centre of the large cube. What is the surface area of the remaining solid? [2]




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55. \_\_\_\_\_

**4.10 Problem Solving (56 through 60)**

56. There are 30 students in class 7B, 21 students play netball while 18 play soccer. If 12 students played both, how many students played neither sport? [2]

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56. \_\_\_\_\_

57. On a Sunday,  $\frac{2}{7}$  of the visitors to a zoo were children. the ratio of the number of men to women was 4:6. There were 252 more adults than children. Find the ratio of the number of women to the number of children who visited the zoo. [2]

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57. \_\_\_\_\_

58. Peter and Adam had a total of \$ 240. Peter gave  $\frac{2}{5}$  of his money to Adam. Adam then gave  $\frac{1}{3}$  of the total amount of money he had to Peter. In the end, each of them had the same amount of money. How much money had each man at first? [2]

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58. \_\_\_\_\_

59.  $\frac{4}{9}$  of a rectangular tank with base area of  $450 \text{ cm}^2$  is filled with water. Another 4.5 L of water is needed to fill this tank to its brim. What is the height of the tank? [2]

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59. \_\_\_\_\_

60. Tony paid \$384 for 3 ties and 9 shirts. A shirt cost 5 times as much as a tie. Find the cost of 5 ties. [2]

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60. \_\_\_\_\_