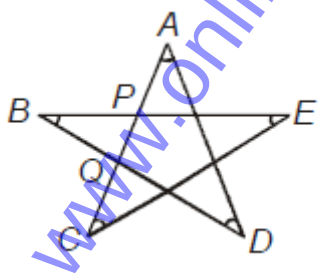
1. In the star shape shown in figure, the sum of the angles marked at the corners
A, *B*, *C*, *D*, *E* is



(a) 90^0

(b) 135^0

(c) 180^0

(d) 140^0

2. An acute angle is an angle whose measure is between 0° and 90°. Using the rays in the diagram, how many different acute angles can be formed?

(a) 12

(c) 15

(b) 9

(d) 10

3. The age of a man is same as his wife's age with the digits reversed. Then sum of their ages is 99 and the man is 9 years older than his wife. How old is the man?

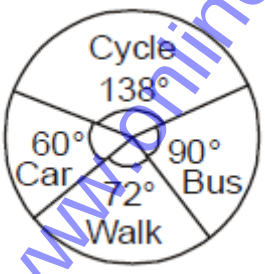
(a) 50

(c) 54

(b) 49

(d) 44

4. 50 students from a certain colony attend a public school. With the help of the given pie chart, find the total number of students who walk to school.



(a) 12

(b) 10

(c) 18

(d) 8

5. Total area of quadrilateral *ABCD* is 20 cm 2 and offsets on *BD* are 2 cm and 3 cm. The length of *BD* is

(a) 5cm

(b) 6cm

(c) 8cm

(d) 10cm

6. In the adjoining figure, AOB and COD are the diameters of a circle. If $\angle ADO = 55^0$ then $\angle OCB$ is

(a) $27\ \frac{1}{2}^0$

(b) $62\ \frac{1}{2}^0$

(c) 55^0

(d) 35^0

7. How many small cubes with edges of 10 cm can be just accommodated in a cubical box of 1 m edge?

(a) 10

(b) 100

(c) 1000

(d) 10000

8. A cylinder and a cone have the same height and the same radius of the base. The ratio between the volumes of the cylinder and the cone is

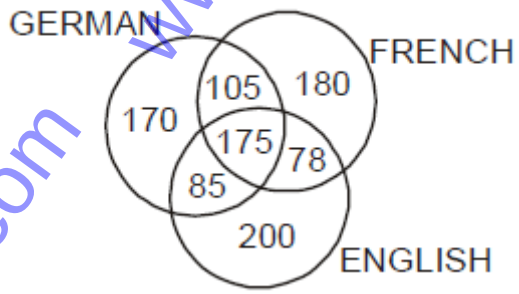
(a) 1:3

(b) 3:1

(c) 1:2

(d) 2:1

9. A survey was conducted on a sample of 1000 persons with reference to their knowledge of English, French and German. The results of the survey are presented in the given Venn diagram. The ratio of the number of persons who do not know any of the three languages to those who know all the three languages is



(a) 1/27

(b) 1/35

(c) 7/175

(d) 175/1000

10. The number of times in a day the hour hand and the minute hand of a clock are at right angles is

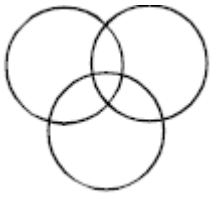
(a) 44

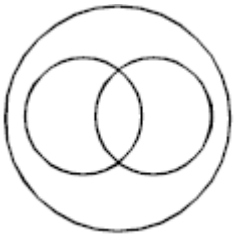
(b) 48

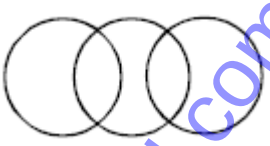
(c) 24

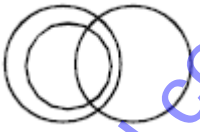
(d) 12

11. Which one of the following diagrams correctly represents the relationship among tennis fans, cricket players and students?

(a) 

(c) 

(b) 

(d) 

12. A, B, C, D, E and F, not necessarily in that order, are sitting on six chairs regularly placed around a round table. It is observed that A is between D and F, C is opposite D, D and E are not on neighbouring chairs. The person sitting opposite B is

(a) A

(c) E

(b) D

(d) F

13. A contest began at noon one day and ended 1000 minutes later. At what time did the contest end?

(a) 10:00 p.m.

(b) Midnight

(c) 2:30 a.m.

(d) 4:40 a.m.

14. Which of the following sets of whole numbers has the largest average?

(a) Multiples of 2 between 1 and 101

(b) Multiples of 3 between 1 and 101

(c) Multiples of 4 between 1 and 101

(d) Multiples of 5 between 1 and 101

15. Johnny used a calculator to find the product 0.075 × 2.56. She forgot to enter the decimal points. The calculator showed 19200. If Johnny had entered the decimal points correctly, the answer would have been

(a) 0.0192

(b) 0.192

(c) 1.92

(d) 19.2

16. Two cyclists, *k* km apart, and starting at the same time, would be together in *r* hours if they traveled in the same direction, but would pass each other in *t* hours if they travelled in opposite directions. The ratio of the speed of the faster cyclist to that of the slower is

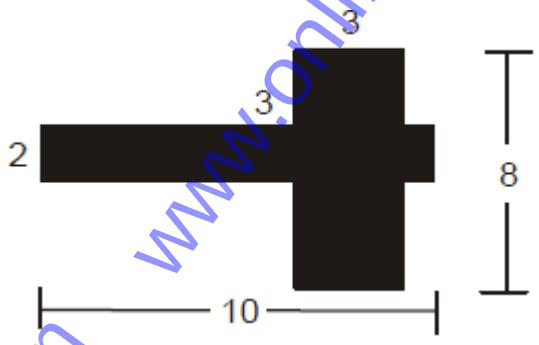
(a) $\frac{r+t}{r-t}$

(b) $\frac{r}{r-t}$

(c) $\frac{r+t}{r}$

(d) $\frac{r}{t}$

17. The shaded area formed by the two intersecting perpendicular rectangles, in square units is



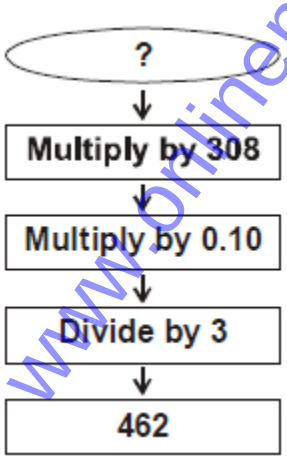
(a) 23

(C) 44

(b) 38

(d) 46

18. What is the number you started with?



(a) 5

(c) 56

(b) 45

(d) 25

19. One term in the number series is wrong. Find out the wrong term.24, 27, 31, 33, 36

(a) 24

(c) 31

(b) 27

(d) 33

20. A is 40 m Southwest of B. C is 40 m South East of B. Then C is in which direction of A?

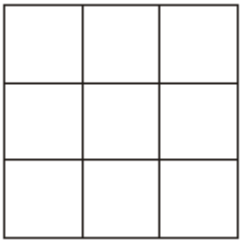
(a) East

(c) North-east

(b) West

(d) South

21. The maximum number of squares in the following figure is



(a) 14

(c) 10

(b) 13

(d) 9

22. Standing on a platform, Arnold told Sam that Joseph was more than ten kilometres but less than fifteen Kilometers from there. Sam knew that it was more than twelve but less than fourteen kilometres from there. If both of them were correct, which of the following could be the distance of Joseph from the platform?

(a) 11 Km

(c) 13 Km

(b) 12 Km

(d) 14 Km

23. If the day before yesterday was Saturday, what day will fall on the day after tomorrow?

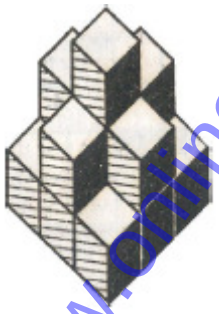
(a) Friday

(c) Wednesday

(b) Thursday

(d) Tuesday

24. Count the number of cubes in the figure given here.



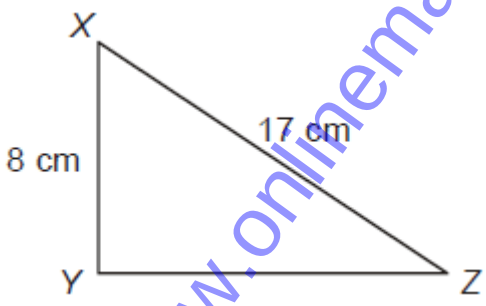
(a) 14

(c) 12

(b) 15

(d) 20

25. What is the length of YZ?



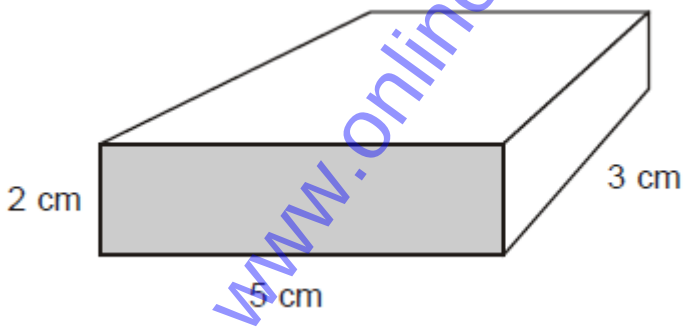
(a) 9 cm

(c) 19 cm

(b) 15 cm

(d) 25 cm

26. What is the volume of the rectangular solid shown below?



(a) 10 cubic cm

(b) 25 cubic cm

(c) 30 cubic cm

(d) 62 cubic cm

27. What is the value of x if $-3x + 2 = -7$?

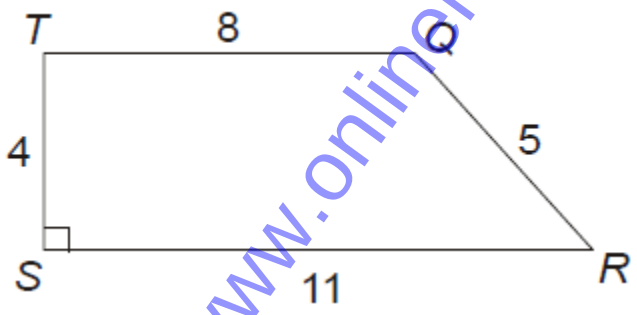
(a) X= -6

(b) X= -3

(c) X= 3

(d) X= 6

28. What is the area of trapezoid *QRST* in square units?



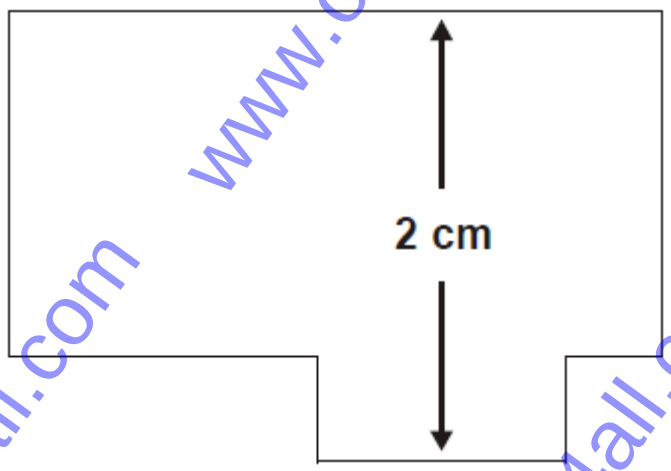
(a) 22

(b) 27

(c) 38

(d) 48

29. Mr. John made a scale drawing of his office.1/2 cm = 3 m The width of the scale drawing of the office is 2 cm. What is the actual width, in meters, of Mr. Gupta's office?



(a) 3

(c) 6

(b) 9

(d) 12

30. Which property is used in the equation given below?
$12(x + 4) = 12x + 48$

(a) Associative Property of Addition

(B) Commutative Property of Addition

(C) Distributive Property

(D) Reflexive Property

31. Which of the following equations illustrates the inverse property of multiplication?

(a) $5 \times (1/5) = 1$

(b) $5 \times 1 = 5$

(c) $5 \times 0 = 0$

(d) $5 \times 5 = 25$

32. A right triangle's hypotenuse has length 5 units. If one leg has length 2 units, what is the length of the other leg?

(a) 3

(b) $\sqrt{21}$

(c) $\sqrt{29}$

(d) 7

33. The sum of a number (n) and 14 is 72. Which equation shows this relationship?

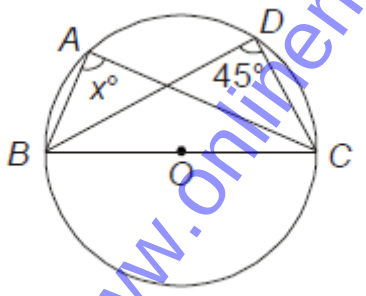
(a) $14 + n = 72$

(b) $72n = 14$

(c) $14 - n = 72$

(d) $72 + n = 14$

34. *O* is the centre of the circle. Find the value of x?



(a) 45

(c) 60

(b) 90

(d) 30

35. Dennis the Menace is thinking of two numbers. Their greatest common factor is 6. Their least common multiple is 36. One of the numbers is 12. What is the other number?

(a) 18

(c) 6

(b) 16

(d) 24

36. Farmer Ronald put a square fence around his vegetable garden to keep the deer from eating his corn. One side was 10 m in length. If the posts were placed 2 m apart, how many posts did he use?

(a) 16

(c) 10

(b) 20

(d) 15

37. Jennifer passed around a basket of strawberries to the girls at her party. Before the party she ate 5 strawberries and gave a friend 3. Eight girls arrived at the party. The first girl took a strawberry, the second girl took 3 strawberries, the third girl took 5 strawberries and so on. After the last girl took her strawberries, the basket was empty. How many strawberries were there in the basket at the beginning?

(a) 72

(c) 65

(b) 60

(d) 45

38. The arithmetic mean of 8, 10, x and 12 is 9. Find the value of x?

(a) 4 (c) 6

(b) 9 (d) 8

39. Two numbers are such that the ratio between them is 5:7. If 7 is added to each of them the ratio becomes 3:4. Find the numbers

(a) 35, 49 (c) 25, 35

(b) 15,21 (d) 30, 42

40. The sum of the digits of a two digit number is 10. If the number formed by reversing the digits is less than the number is 36, find the number.

(a) 48 (c) 73

(b) 37 (d) 84

41. Shawn invested one half of his savings in a bond that paid simple interest for 2 years and received $ 550 as interest. He invested the remaining in a bond that paid compound interest, interest being compounded annually, for the same 2 years at the same rate of interest and received $605 as interest. What was the value of his total savings before investing in these two bonds?

(a) $500

(c) $11000

(b) $2660

(d) $2750

42. Find the smallest number by which 3087 should be multiplied to obtain a perfect cube.

(a) 2

(c) 5

(b) 4

(d) 3

43. 40% of a number is 360. What is 25% of the number?

(a) 225

(c) 250

(b) 312

(d) 550

44. Solve the following equation
$4x-(2+4x) -2(x-1) = -8(x-3)$

(a) X = 4

(c) X = 5

(b) X = 2

(d) X = 3

45. The moon is about 384000 km away from the earth and its path around the earth is nearly circular. Find the distance traveled by moon every month.

(a) 2423716 km

(c) 2413714 km

(b) 1413714 km

(d) 2113714 km

46. The circumference of two circular concentric rings are 132 cm and 176 cm. Find the width between the rings.

(a) 4 cm

(c) 7 cm

(b) 6 cm

(d) 9 cm

47. The radius and height of a cylinder are in the ratio 5:7 and its volume is 550 cm^3. Find the radius.

(a) 5 cm

(c) 7 cm

(b) 2 cm

(d) 9 cm

48. Two trains starting at the same time, having lengths 200m each are moving in same direction. If speed of the two trains is 30 km/h and 35km/h respectively find when they will cross each other?

(a) 3 minutes 20 seconds

(b) 2 minutes 24 seconds

(c) 5 minutes 20 seconds

(d) 3 minutes 35 seconds

49. In a school, the total enrolment of class VIII is 115. If the number of boys exceeds the number of girls by 33, find the number of boys in the class VIII.

(a) 76

(c) 83

(b) 55

(d) 74

50. Find the value of $3x^3 - 4x^2 + 7x - 5$ when $x = 3$

(a) 50

(c) 61

(b) 72

(d) 12

Answers:

1. c	2. d	3. c	4. b	5. c	6. c
7. c	8.b	9. c	10. a	11. a	12.d
13.d	14. d	15. b	16. a	17. b	18. b
19. c	20. a	21. a	22. c	23. c	24. b
25. b	26. c	27. c	28. c	29.d	30. c
31. a	32. b	33. a	34.a	35. a	36. b
37. a	38. c	39.a	40. c	41. d	42. d
43. a	44. a	45. c	46.b	47. a	48. b
49. d	50. c				