ST. LAWRENCE HIGH SCHOOL

27, BALLYGUNGE CIRCULAR ROAD

Class : 8	Subject : ALG/GEOM	Term : FINAL TERM	Max Marks : 80

Q 1 : Number of lines of symmetry of a square is _____   **Marks :** 1

1 . 1

2 . 2

3 . 3

4 . 4   ☑ (This Answer is Correct)

Q 2 : Find two numbers whose difference is 65,if the larger is 6 times the smaller.   **Marks :** 1

1 . 78 , 13   ☑ (This Answer is Correct)

2 . 13 , 56

3 . 65 , 15

4 . 78 , 65

Q 3 : If 0.4 x = 0.44 , then 100 x = _____   **Marks :** 1

1 . 11

2 . 110   ☑ (This Answer is Correct)

3 . 1.1

4 . 0.1

Q 4 : If a number is multiplied by 5 and 8 is subtracted from the product, the result is 12.Find the number   **Marks :** 1

1 . 4   ☑ (This Answer is Correct)

2 . 10

3 . 11

4 . 24

Q 5 : Find two consecutive odd numbers whose sum is 56   **Marks :** 1

1 . 27 , 29   ☑ (This Answer is Correct)

2 . 30 , 26

3 . 30 , 40

4 . 28 , 28

Q 6 :   Factorise, 64 - (a-5) ^{2} **Marks :**   1

   1 . (3+ a) (13 - a)   ✅ (This Answer is Correct)

   2 . (3 - a) (13 - a)

   3 . (3 + a) (13 + a)

   4 . a (13 - a)

Q 7 :   Factorise, $x^4 + 2x^2 + 1$ **Marks :**   1

   1 . ($x^2 + 1$) ($x^2 + 1$)   ✅ (This Answer is Correct)

   2 . ($x^2 - 1$) ($x^2 - 1$)

   3 . x^2 ($x^2 + 1$)

   4 . ($x^2 + 1$) ($x^2 - 1$)

Q 8 :   Find $a^2 + b^2$, if a+b=10 and a-b=2   **Marks :**   1

   1 . 52   ✅ (This Answer is Correct)

   2 . 25

   3 . 27

   4 . 55

Q 9 :   Find a-b,if a+b =3 , ab=2   **Marks :**   1

   1 . 1

   2 . -1

   3 . 1 , -1   ✅ (This Answer is Correct)

   4 . 0

Q 10 :   If x + 1/x = 3 , then $x^2 + 1/x^2$ = _____   **Marks :**   1

   1 . 9

   2 . 7   ✅ (This Answer is Correct)

   3 . 8

   4 . 11

Q 11 :   8,15, _____ are the sides of a right angled triangle   **Marks :**   1

   1 . 14

   2 . 16

   3 . 17   ✅ (This Answer is Correct)

   4 . 18

Q 12 :   Number of lines of symmetry of an isosceles triangle is ____   **Marks :**   1

    1 . 1   ☑ (This Answer is Correct)

    2 . 2

    3 . 3

    4 . 4

Q 13 :   Number of lines of symmetry of an equilateral triangle is ____   **Marks :**   1

    1 . 1

    2 . 2

    3 . 3   ☑ (This Answer is Correct)

    4 . 4

Q 14 :   Number of lines of symmetry of a kite is _____   **Marks :**   1

    1 . 1   ☑ (This Answer is Correct)

    2 . 2

    3 . 3

    4 . 4

Q 15 :   Number of lines of symmetry of an arrowhead is ____   **Marks :**   1

    1 . 1   ☑ (This Answer is Correct)

    2 . 2

    3 . 3

    4 . 4

Q 16 :   Number of lines of symmetry of a rhombus is _____   **Marks :**   1

    1 . 1

    2 . 2   ☑ (This Answer is Correct)

    3 . 3

    4 . 4

Q 17 :   Number of lines of symmetry of a semicircle is _____   **Marks :**   1

    1 . 1   ☑ (This Answer is Correct)

    2 . 2

    3 . 3

    4 . 4

Q 18 :   Which of the following letters have no line of symmetry?   **Marks :**   1

     1 . F   ✅ (This Answer is Correct)

     2 . A

     3 . C

     4 . B

Q 19 :   Which of the following letters have no line of symmetry?   **Marks :**   1

     1 . D

     2 . G   ✅ (This Answer is Correct)

     3 . A

     4 . E

Q 20 :   Which of the following letters have no line of symmetry?   **Marks :**   1

     1 . T

     2 . U

     3 . J   ✅ (This Answer is Correct)

     4 . W

Q 21 :   Which of the following letters have no line of symmetry?   **Marks :**   1

     1 . M

     2 . A

     3 . I

     4 . L   ✅ (This Answer is Correct)

Q 22 :   Which of the following letters have no line of symmetry?   **Marks :**   1

     1 . N   ✅ (This Answer is Correct)

     2 . K

     3 . U

     4 . C

Q 23 :   Which of the following letters have no line of symmetry?   **Marks :**   1

     1 . B

     2 . P   ✅ (This Answer is Correct)

     3 . V

     4 . E

Q 24 : Which of the following letters have no line of symmetry? **Marks :** 1

1 . A

2 . D

3 . Q ☑ (This Answer is Correct)

4 . W

Q 25 : A pentagon has _____ lines of symmetry **Marks :** 1

1 . 2

2 . 5 ☑ (This Answer is Correct)

3 . 3

4 . 1

Q 26 : A hexagon has _____ lines of symmetry **Marks :** 1

1 . Infinite

2 . 1

3 . 6 ☑ (This Answer is Correct)

4 . 0

Q 27 : A angle has how many lines of symmetry? **Marks :** 1

1 . 1 ☑ (This Answer is Correct)

2 . 2

3 . 3

4 . 4

Q 28 : Which of the following letters have a line of symmetry? **Marks :** 1

1 . A ☑ (This Answer is Correct)

2 . P

3 . G

4 . J

Q 29 : Solve for x , 3 (x +1) + 4 x = 24 **Marks :** 1

1 . 3 ☑ (This Answer is Correct)

2 . 600

3 . 110

4 . 120

Q 30 :   Solve for x , 4 x - 5 = 19   **Marks :**   1

1 .   5

2 . 6   ✅ (This Answer is Correct)

3 .   9

4 .   10

Q 31 :   Solve for x , 0.5 x = 5   **Marks :**   1

1 .   5

2 .   15

3 . 10   ✅ (This Answer is Correct)

4 .   0.5

Q 32 :   Solve for x , 15 ÷ x = 3   **Marks :**   1

1 .   15

2 .   0.5

3 .   50

4 . 5   ✅ (This Answer is Correct)

Q 33 :   Solve for x , x +10 = 7 x + 10   **Marks :**   1

1 . 0   ✅ (This Answer is Correct)

2 .   1

3 .   -1

4 .   -2

Q 34 :   Solve for x , x -10 = 8 x + 20   **Marks :**   1

1 . -30/7   ✅ (This Answer is Correct)

2 .   7/30

3 .   30

4 .   7

Q 35 :   Solve for x , (13 x + 4) ÷ 6 = 5   **Marks :**   1

1 .   4

2 . 2   ✅ (This Answer is Correct)

3 .   3

4 .   6

Q 36 :   Solve for x , 5 (1 - 2 x) + 8 x = 15   **Marks :**   1

   1 .   0.05

   2 .   5

   3 . -5   ✅ (This Answer is Correct)

   4 .   50

Q 37 :   The sum of two numbers is 11 and one of them is 5 greater than the other. Find the numbers.   **Marks :**   1

   1 .   2 , 9

   2 .   4 , 7

   3 .   6 , 5

   4 . 3 , 8   ✅ (This Answer is Correct)

Q 38 :   The number decreased by 7 is 25, find the number   **Marks :**   1

   1 . 32   ✅ (This Answer is Correct)

   2 .   23

   3 .   30

   4 .   -40

Q 39 :   The number increased by 10 is 16, find the number   **Marks :**   1

   1 .   16

   2 . 6   ✅ (This Answer is Correct)

   3 .   26

   4 .   -6

Q 40 :   If 7 x - 2 = 21 + 10 x , then x is _____   **Marks :**   1

   1 .   a fraction

   2 .   an integer

   3 . a rational number   ✅ (This Answer is Correct)

   4 .   none of these

Q 41 :   Solve for x , x + 5 x + 7 = 25   **Marks :**   1

   1 .   4

   2 .   2

   3 . 3   ✅ (This Answer is Correct)

   4 .   6

Q 42 :   Solve for y, 8 y - 3 - 5 y = 24   **Marks :**   1

    1 .   4

    2 .   2

    3 .   3

    4 . 9   ☑ (This Answer is Correct)

Q 43 :   If angle at the centre of a circle is 40 °, angle at the circumference is _____ °   **Marks :**   1

    1 .   80

    2 .   10

    3 .   30

    4 . 20   ☑ (This Answer is Correct)

Q 44 :   If exterior angle of a cyclic quadrilateral is 50 °, then interior opposite angle is _____ °   **Marks :**   1

    1 .   100

    2 . 50   ☑ (This Answer is Correct)

    3 .   120

    4 .   250

Q 45 :   If angle at the circumference of a circle is x °, angle at the centre is _____ °   **Marks :**   1

    1 . 2x   ☑ (This Answer is Correct)

    2 .   3x

    3 .   x

    4 .   4x

Q 46 :   If a number is multiplied by 2 and 8 is added to the product, the result is 50.Find the number   **Marks :**   1

    1 . 21   ☑ (This Answer is Correct)

    2 .   42

    3 .   20

    4 .   7

Q 47 :   Solve for x , 2 x ÷ 3 = 8   **Marks :**   1

    1 . 12   ☑ (This Answer is Correct)

    2 .   13

    3 .   14

    4 .   15

Q 48 :   Solve for y , 1.5 y - 7 = 0.5 y   **Marks :**   1

1 . 8

2 . 7   ☑ (This Answer is Correct)

3 . 9

4 . 10

Q 49 :   If $x^2 + 6x + 7 = x^2 + 5x + 12$, then x equals ____   **Marks :**   1

1 . 5   ☑ (This Answer is Correct)

2 . 7

3 . 9

4 . 10

Q 50 :   Angle in a semicircle is ____ °   **Marks :**   1

1 . 90   ☑ (This Answer is Correct)

2 . 180

3 . 360

4 . 0

Q 51 :   If one angle of a cyclic quadrilateral is 100 °, the opposite angle is ____ °   **Marks :**   1

1 . 75

2 . 70

3 . 80   ☑ (This Answer is Correct)

4 . 100

Q 52 :   If radius of circle is 5cm, and length of chord is 8cm,then distance from centre to chord of circle is   **Marks :**   1
___cm

1 . 1

2 . 2

3 . 3   ☑ (This Answer is Correct)

4 . 4

Q 53 :   If angle at the centre of a circle is 70 °, angle at the circumference is ____ °   **Marks :**   1

1 . 20

2 . 15

3 . 25

4 . 35   ☑ (This Answer is Correct)

Q 54 :   _____ is the longest chord of a circle   **Marks :**   1

    1 . Diameter   ☑ (This Answer is Correct)

    2 . Radius

    3 . Tangent

    4 . Secant

Q 55 :   Opposite angles of a cyclic quadrilateral are _____   **Marks :**   1

    1 . supplementary   ☑ (This Answer is Correct)

    2 . complementary

    3 . equal

    4 . none of these

Q 56 :   Angles at the same segment of a circle are ____   **Marks :**   1

    1 . supplementary

    2 . complementary

    3 . equal   ☑ (This Answer is Correct)

    4 . none of these

Q 57 :   The sum of any two sides of a triangle is _____ than the third side   **Marks :**   1

    1 . less

    2 . greater   ☑ (This Answer is Correct)

    3 . equal

    4 . none of these

Q 58 :   Point of concurrence of the medians of a triangle is called _____   **Marks :**   1

    1 . circumcentre

    2 . orthocentre

    3 . incentre

    4 . centroid   ☑ (This Answer is Correct)

Q 59 :   If one angle of a triangle is equal to the sum of the other two, then the triangle is _____   **Marks :**   1

    1 . right angled   ☑ (This Answer is Correct)

    2 . equiangular

    3 . scalene

    4 . equilateral

Q 60 :   A line from a vertex perpendicular to the opposite side of a triangle is _____   **Marks :**   1

1 . hypotenuse

2 . angle bisector

3 . altitude   ☑ (This Answer is Correct)

4 . median

Q 61 :   If $c^2 < a^2 + b^2$ in a triangle, then angle C is   **Marks :**   1

1 . acute   ☑ (This Answer is Correct)

2 . obtuse

3 . right angle

4 . none of these

Q 62 :   One number is 9 more than the other. If their sum is 63,what are the numbers?   **Marks :**   1

1 . 22 , 30

2 . 27 , 36   ☑ (This Answer is Correct)

3 . 12 , 51

4 . 33 , 30

Q 63 :   The sum of two numbers is 64,and the second number is 16 less than the first. Find the numbers.   **Marks :**   1

1 . 20 , 44

2 . 30 , 34

3 . 24 , 40   ☑ (This Answer is Correct)

4 . 17 , 38

Q 64 :   Find two consecutive even numbers whose sum is 86   **Marks :**   1

1 . 43 , 44

2 . 41 , 45

3 . 40 , 46

4 . 42 , 44   ☑ (This Answer is Correct)

Q 65 :   Factorise, 16x - 40xy   **Marks :**   1

1 . 4x (4 - 10y)   ☑ (This Answer is Correct)

2 . 4x (4x - 10y)

3 . 4 (4x - 10y)

4 . 4 (4x - 10)

Q 66 :   Factorise, $(x-5)^2 - 3(x-5)$ **Marks :**   1

1 . (x + 5) (x - 8)

2 . (x - 5) (x - 8)   ✅ (This Answer is Correct)

3 . (x - 5) (x + 8)

4 . (x - 8)

Q 67 :   Factorise, $9x^2 - 16y^2$ **Marks :**   1

1 . (3x + 4y) (3x + 4y)

2 . (3x -4y) (3x - 4y)

3 . (3x + 4y) (3x - 4y)   ✅ (This Answer is Correct)

4 . (3x - 4y)

Q 68 :   Which is not a factor of $18y^2 + 36y$?   **Marks :**   1

1 . 1

2 . 4y   ✅ (This Answer is Correct)

3 . y + 2

4 . 18y

Q 69 :   Factorise, $x^2 + 8x + 15$ **Marks :**   1

1 . (x - 5) (x - 15)

2 . (x - 5) (x - 3)

3 . (x - 5) (x + 3)

4 . (x + 5) (x + 3)   ✅ (This Answer is Correct)

Q 70 :   Factorise, 5x + 5y + ax + ay   **Marks :**   1

1 . (x - y) (5 + y)

2 . (x + y) (5 + a)   ✅ (This Answer is Correct)

3 . (x + y) (5 - y)

4 . none of these

Q 71 :   Factorise, $x^2 - 2xy + y^2$ **Marks :**   1

1 . (x - y) (x + y)

2 . (x - y) (x - y)   ✅ (This Answer is Correct)

3 . (x - y) (x + y)

4 . none of these

Q 72 : $(x+4)(x+2) =$ **Marks :** 1

1 . $x^2 + 6x + 8$ ✅ (This Answer is Correct)

2 . $x^2 + 6x + 9$

3 . $x^2 - 6x + 9$

4 . $x^2 - 5x + 9$

Q 73 : $(x+y)(x-y)=$ _____ **Marks :** 1

1 . $x^2 - y^2$ ✅ (This Answer is Correct)

2 . $x^2 + y^2$

3 . $x^2 - y$

4 . $x - y$

Q 74 : 99^2 is **Marks :** 1

1 . 9811

2 . 9801 ✅ (This Answer is Correct)

3 . 9900

4 . 999

Q 75 : What must be added to $4a^2 + 9b^2$ to make it a perfect square? **Marks :** 1

1 . 12b

2 . 12a

3 . 12ab ✅ (This Answer is Correct)

4 . none of these

Q 76 : $41 \times 39 =$ ___ **Marks :** 1

1 . 1400

2 . 1345

3 . 1600

4 . 1599 ✅ (This Answer is Correct)

Q 77 : $91^2 - 9^2 =$ _____ **Marks :** 1

1 . 820

2 . 8200 ✅ (This Answer is Correct)

3 . 82000

4 . 2800

Q 78 : $(a+b)^2 - (a+b)^2 = $ _____   **Marks :**   1

1 . 4ab   ☑ (This Answer is Correct)

2 . ab

3 . 2ab

4 . a+b

Q 79 :   Circle has _____ lines of symmetry   **Marks :**   1

1 . Infinite   ☑ (This Answer is Correct)

2 . 0

3 . 1

4 . 2

Q 80 :   7 times a number equals 3 less than 5 times that number, the number is _____   **Marks :**   1

1 . -1.5   ☑ (This Answer is Correct)

2 . 2/3

3 . 14

4 . 0.25