



# ST. LAWRENCE HIGH SCHOOL

27, BALLYGUNGE CIRCULAR ROAD

**Class : 7****Subject : ALG/GEOM****Term : FINAL TERM****Max Marks : 80****Q 1 :** If base = 7 cm and hypotenuse = 25 cm what is the perpendicular in cm?**Marks : 1**

1. 10
2. 14
3. 19
4. 24

 ( This Answer is Correct )**Q 2 :** If base = 6 cm and perpendicular = 8 cm what is the hypotenuse in cm?**Marks : 1**

1. 9
2. 10
3. 13
4. 17

 ( This Answer is Correct )**Q 3 :** If base = 20 cm and perpendicular = 21 cm what is the hypotenuse in cm?**Marks : 1**

1. 24
2. 27
3. 29
4. 35

 ( This Answer is Correct )**Q 4 :** If hypotenuse = 17 cm and base = 15 cm what is the perpendicular in cm?**Marks : 1**

1. 5
2. 8
3. 7
4. 12

 ( This Answer is Correct )**Q 5 :** If hypotenuse = 13 cm, perpendicular = 5 cm, what is the base in cm?**Marks : 1**

1. 9
2. 10
3. 11
4. 12

 ( This Answer is Correct )

**Q 6 :** The number of letters in the word SNAIL that have symmetry is

**Marks :** 1

1. 0
2. 1
- 3. 2**
4. 3

( This Answer is Correct )

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**Q 7 :** Which of the following does not have a line of symmetry?

**Marks :** 1

1. C
2. 3
- 3. 69**
4. O

( This Answer is Correct )

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**Q 8 :** Which of the following has a line of symmetry?

**Marks :** 1

1. S
2. a parallelogram
3. a swastika
- 4. 8**

( This Answer is Correct )

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**Q 9 :** The order of rotational symmetry of an octagon is \_\_\_\_\_

**Marks :** 1

1. 4
2. 6
- 3. 8**
4. 2

( This Answer is Correct )

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**Q 10 :** Which of the following letters does not have a line symmetry?

**Marks :** 1

1. H
2. I
- 3. Z**
4. X

( This Answer is Correct )

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**Q 11 :** What is the number of lines of symmetry for a regular hexagon?

**Marks :** 1

1. 2
2. 4
- 3. 6**
4. 8

( This Answer is Correct )

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**Q 12 :** What is the order of rotational symmetry for a regular hexagon?

**Marks :** 1

1. 2
2. 4
- 3. 6**
4. 8

( This Answer is Correct )

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**Q 13 :** Which of these has infinite lines of symmetry and an infinite order rotational symmetry and a point symmetry?

**Marks :** 1

1. semi circle
2. Ellipse
- 3. Circle**
4. Parallelogram

( This Answer is Correct )

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**Q 14 :** How many lines of symmetry are there in an equilateral triangle?

**Marks :** 1

1. 0
2. 1
3. 2
- 4. 3**

( This Answer is Correct )

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**Q 15 :** How many lines of symmetry are there in a square?

**Marks :** 1

- 1. 4**
2. 3
3. 2
4. 1

( This Answer is Correct )

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**Q 16 :** How many lines of symmetry are there in a rectangle?

**Marks :** 1

1. 3
- 2. 2**
3. 1
4. 0

( This Answer is Correct )

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**Q 17 :** How many lines of symmetry are there in a regular pentagon?

**Marks :** 1

1. 1
2. 3
- 3. 5**
4. 7

( This Answer is Correct )

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**Q 18 :** How many lines of symmetry are there in the letter M?

**Marks :** 1

- 1 . 1
- 2 . 2
- 3 . 3
- 4 . 4

( This Answer is Correct )

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**Q 19 :** How many lines of symmetry are there in a kite?

**Marks :** 1

- 1 . 3
- 2 . 2
- 3 . 1
- 4 . 0

( This Answer is Correct )

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**Q 20 :** How many lines of symmetry are there in a rhombus?

**Marks :** 1

- 1 . 1
- 2 . 2
- 3 . 3
- 4 . 4

( This Answer is Correct )

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**Q 21 :** What is the sum of the interior angles of a triangle?

**Marks :** 1

- 1 . 60
- 2 . 80
- 3 . 90
- 4 . 180

( This Answer is Correct )

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**Q 22 :** What is the measure of ONE interior angle in a regular pentagon (5-sides)?

**Marks :** 1

- 1 . 90
- 2 . 108
- 3 . 120
- 4 . 180

( This Answer is Correct )

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**Q 23 :** What is the sum of the interior angles of a nonagon (9 sides)?

**Marks :** 1

- 1 . 1440
- 2 . 900
- 3 . 1080
- 4 . 1260

( This Answer is Correct )

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**Q 24 :** Find the angle sum of the interior angles of the hexagon.

**Marks :** 1

1. 180
2. 540
- 3. 720**
4. 1080

( This Answer is Correct )

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**Q 25 :** What is the name of a 7 sided polygon?

**Marks :** 1

1. hexagon
- 2. heptagon**
3. dodecagon
4. octagon

( This Answer is Correct )

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**Q 26 :** How many sides does an octagon have?

**Marks :** 1

1. 6
- 2. 8**
3. 10
4. 12

( This Answer is Correct )

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**Q 27 :** What is the sum of the exterior angles in a decagon?

**Marks :** 1

1. 10
- 2. 360**
3. 361
4. 441

( This Answer is Correct )

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**Q 28 :** Which formula is used to find the sum of the interior angles of a polygon?

**Marks :** 1

1. 180
2.  $(n-2)180 \div n$
- 3.  $(n-2)180$**
4.  $n(n-3)/2$

( This Answer is Correct )

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**Q 29 :** If the measure of an exterior angle of a regular polygon is  $24^\circ$ , how many sides does the polygon have?

**Marks :** 1

1. 12
2. 13
3. 14

( This Answer is Correct )

4 . 15

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**Q 30 :** What is a polygon?**Marks :** 1

- 1 . A closed figure made up of straight line segments
- 2 . An open figure made up of straight line segments
- 3 . A closed figure made up of curved edges
- 4 . An closed figure made up of crossed line segments

 ( This Answer is Correct )

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**Q 31 :** A polygon's interior angles add up to 2700. How many sides does the polygon have?**Marks :** 1

- 1 . 17
- 2 . 19
- 3 . 15
- 4 . 11

 ( This Answer is Correct )

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**Q 32 :** Find the number of sides of a regular polygon with one interior angle measuring  $165^\circ$ **Marks :** 1

- 1 . 20
- 2 . 22
- 3 . 24
- 4 . 26

 ( This Answer is Correct )

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**Q 33 :** The plane figure which consists of three or more edges as its sides is called**Marks :** 1

- 1 . polygon
- 2 . equilateral polygon
- 3 . isosceles polygon
- 4 . scalene triangle

 ( This Answer is Correct )

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**Q 34 :** The plane with four edges as its sides is called**Marks :** 1

- 1 . quadrilateral
- 2 . pentagon
- 3 . nonagon
- 4 . decagon

 ( This Answer is Correct )

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**Q 35 :** The type of polygon in which its all angles and sides are equal is classified as**Marks :** 1

- 1 . regular octagon
- 2 . regular hexagon

( This Answer is Correct )

- 3 . regular polygon
  - 4 . regular pentagon
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**Q 36 :** The product of  $-8x^2 y$  and  $3x^3 y^3$  is

**Marks :** 1

- 1 .  $-24x^5 y^4$
- 2 .  $24x^5 y^4$
- 3 .  $-8x^6 y^4$
- 4 .  $3x^{24} y^5$

 ( This Answer is Correct )

**Q 37 :**  $(x+2)x(x+6)$  gives

**Marks :** 1

- 1 .  $x^2+8x -12$
- 2 .  $x^2+8x +12$
- 3 .  $x^2+6x +2$
- 4 .  $x^2+2x +6$

 ( This Answer is Correct )

**Q 38 :**  $(p-2q/3)(p+2q/3)$  gives

**Marks :** 1

- 1 .  $p^2-(4q^2)/9$
- 2 .  $p^2+(4q^2)/9$
- 3 .  $p^2-(4q^2)/9+4pq/3$
- 4 .  $p^2-(4q^2)/9-4pq/3$

 ( This Answer is Correct )

**Q 39 :** Simplify  $6a^2+2a(4a +3b)-12ab$

**Marks :** 1

- 1 .  $14a^2-6ab$
- 2 .  $14a^2-18ab$
- 3 .  $14a^2-12ab + 3b$
- 4 .  $14a^2-12ab +2a +3b$

 ( This Answer is Correct )

**Q 40 :** Find the product of  $2x^2$ .  $(3x-4y)$ .  $4xy$ .  $(x+2y)$

**Marks :** 1

- 1 .  $24x^5 y + 16x^4 y^2-64x^3 y^3$
- 2 .  $24x^5 y + 16x^4 y^2+64x^3 y^3$
- 3 .  $24x^5 y - 16x^4 y^2-64x^3 y^3$
- 4 .  $24x^5 y + 64x^4 y^2-16x^3 y^3$

 ( This Answer is Correct )

**Q 41 :** Divide  $12x^3$  by  $3x$

**Marks :** 1

1. 4
2.  $4x$
3.  $4x^2$
4. 12

( This Answer is Correct )

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**Q 42 :** Divide  $4a^3+8a^4$  by  $4a$

**Marks :** 1

1.  $a^2+2a^3$
2.  $a^3+8a^2$
3.  $9a^3$
4.  $3+8a^4$

( This Answer is Correct )

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**Q 43 :** Divide  $a^2+4a+4$  by  $a+2$

**Marks :** 1

1.  $a-2$
2.  $a+2$
3.  $4a+4$
4.  $a^2+2a$

( This Answer is Correct )

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**Q 44 :** Divide  $-8/9 x^4 y^3$  by  $-4/27 x^3 y^2$

**Marks :** 1

1.  $3x^2y$
2.  $2xy^2$
3.  $6xy$
4.  $3x/2y$

( This Answer is Correct )

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**Q 45 :** Divide  $x^2-3x+2$  by  $x+2$

**Marks :** 1

1.  $x-1$
2.  $x-2$
3.  $x^2-2x$
4.  $x+2$

( This Answer is Correct )

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**Q 46 :** Simplify  $8+(a-2)$

**Marks :** 1

1.  $a+6$
2.  $a-6$
3.  $6-a$
4.  $6a$

( This Answer is Correct )



**Q 47 :** Simplify  $5+2(a-2)$ **Marks :** 1

- 1 .  $2a + 1$
- 2 .  $2a-1$
- 3 .  $1-2a$
- 4 .  $2a$

 ( This Answer is Correct )**Q 48 :** Simplify  $6a-(8a-3)$ **Marks :** 1

- 1 .  $3-2a$
- 2 .  $2a-3$
- 3 .  $3a-2$
- 4 .  $2-3a$

 ( This Answer is Correct )**Q 49 :** Simplify  $p-3(p-q)$ **Marks :** 1

- 1 .  $3p-2q$
- 2 .  $3q-2p$
- 3 .  $2p+3q$
- 4 .  $2q-3p$

 ( This Answer is Correct )**Q 50 :** Simplify  $a(a-b)-b(b-a)$ **Marks :** 1

- 1 .  $a^2-2ab + b^2$
- 2 .  $a^2+2ab + b^2$
- 3 .  $a^2+ab -b^2$
- 4 .  $a^2-b^2$

 ( This Answer is Correct )**Q 51 :**  $(x + 3)(x-3)$ **Marks :** 1

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

 ( This Answer is Correct )**Q 52 :**  $(3a + 4)(3a-4)$ **Marks :** 1

- 1 .  $9a^2-16$
- 2 .  $9a^2+24a+16$
- 3 .  $9a^2+12a+8$
- 4 .  $9a^2+24a+8$

 ( This Answer is Correct )

**Q 53 :**  $(x-5)(x+5)$ **Marks :** 1

1.  $x^2 - 10x + 25$
2.  $x^2 - 25$
3.  $x^2 - 10$
4.  $x + 25x^2 + 25$

 ( This Answer is Correct )**Q 54 :**  $(3c + 6d)(3c - 6d)$ **Marks :** 1

1.  $9c^2 + 36cd + 36d^2$
2.  $9c^2 - 36d^2$
3.  $6c^2 + 36cd + 12d^2$
4.  $6c^2 + 9cd + 12d^2$

 ( This Answer is Correct )**Q 55 :**  $(5x - 2)(5x + 2)$ **Marks :** 1

1.  $25x^2 - 20x + 4$
2.  $25x^2 + 3x + 4$
3.  $25x^2 + 6x + 4$
4.  $25x^2 - 4$

 ( This Answer is Correct )**Q 56 :**  $(5a^5 - 2b)(5a^5 + 2b)$ **Marks :** 1

1.  $10a^{10} + 4b^2$
2.  $25a^{10} - 20a^5b + 4b^2$
3.  $25a^{10} + 10a^5b + 10b^2$
4.  $25a^{10} - 4b^2$

 ( This Answer is Correct )**Q 57 :**  $(a+b)(a-b)$ **Marks :** 1

1.  $a^2 - b^2$
2.  $a^2 + 4ab + b^2$
3.  $a^2 + 2ab + b^2$
4.  $2a^2 + 4ab + 2b^2$

 ( This Answer is Correct )**Q 58 :**  $(x + 4)(x - 4)$ **Marks :** 1

1.  $x^2 + 8x + 16$
2.  $x^2 + 16$
3.  $x^2 - 16$
4.  $x + 6x^2 + 8$

 ( This Answer is Correct )

**Q 59 :**  $(3a - 5)(3a + 5)$ **Marks :** 1

1.  $9a^2 - 25$
2.  $9a^2 + 25a + 25$
3.  $9a^2 - 10a + 10$
4.  $9a^2 + 10a + 25$

 ( This Answer is Correct )**Q 60 :**  $(x+25)(x-25)$ **Marks :** 1

1.  $x^2 + 50x + 625$
2.  $x^2 - 625$
3.  $x^2 - 50$
4.  $x + 625x^2 + 625$

 ( This Answer is Correct )**Q 61 :**  $(2x-y)(2x+y)$ **Marks :** 1

1.  $4x^2 - 4xy + y^2$
2.  $4x^2 + y^2$
3.  $4x^2 - y^2$
4.  $4x^2 + 4xy + y^2$

 ( This Answer is Correct )**Q 62 :**  $(x-7)(x+7)$ **Marks :** 1

1.  $x^2 - 14x + 49$
2.  $x^2 - 49$
3.  $x^2 + 49$
4.  $x^2 + 14x - 49$

 ( This Answer is Correct )**Q 63 :**  $(2x+9)(2x-9)$ **Marks :** 1

1.  $4x^2 - 36x - 81$
2.  $4x^2 + 36x + 81$
3.  $4x^2 + 81$
4.  $4x^2 - 81$

 ( This Answer is Correct )**Q 64 :**  $(6 - 2y)(6 + 2y)$ **Marks :** 1

1.  $36 - 4y^2$
2.  $4y^2 - 36$
3.  $36 - 24y + 4y^2$
4.  $4y^2 - 24y - 36$

 ( This Answer is Correct )

**Q 65 :** Rule for rotation

**Marks :** 1

- 1 . You must turn the shape 90, 180 or 270 degrees
- 2 . . You must move the shape without altering the layout
- 3 . Must flip the shape on the mirror/reflection line
- 4 . None of these

( This Answer is Correct )

**Q 66 :** A turn is also called a

**Marks :** 1

- 1 . Rotation
- 2 . reflection
- 3 . translation
- 4 . None of these

( This Answer is Correct )

**Q 67 :** The point about which rotation takes place is called

**Marks :** 1

- 1 . centre of rotation
- 2 . centroid of rotation
- 3 . central rotation
- 4 . point of symmetry

( This Answer is Correct )

**Q 68 :** Direction of rotation can be explained as

**Marks :** 1

- 1 . top
- 2 . left
- 3 . up
- 4 . clockwise

( This Answer is Correct )

**Q 69 :** The line across which reflection takes place is called\_\_\_\_\_

**Marks :** 1

- 1 . mirror line
- 2 . reflection line
- 3 . line of symmetry
- 4 . all of these

( This Answer is Correct )

**Q 70 :** In a triangle PQR if  $\angle QPR = 80^\circ$  and  $PQ = PR$ , then  $\angle R$  and  $\angle Q$  are

**Marks :** 1

- 1 .  $80^\circ, 80^\circ$
- 2 .  $70^\circ, 80^\circ$
- 3 .  $50^\circ, 50^\circ$
- 4 .  $70^\circ, 70^\circ$

( This Answer is Correct )

**Q 71 :** The total measure of the three angles of a triangle is \_\_\_\_\_

**Marks :** 1

- 1 .  $45^\circ$
- 2 .  $90^\circ$
- 3 .  $180^\circ$**
- 4 .  $360^\circ$

( This Answer is Correct )

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**Q 72 :** If the two angles of a triangle are 50 degree and 70 degree, then the measure of third angle is \_\_\_\_\_ degree

**Marks :** 1

- 1 . 50
- 2 . 60**
- 3 . 70
- 4 . 80

( This Answer is Correct )

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**Q 73 :** In a right angled triangle, if one angle is 45 degree then the measure of the third angle is \_\_\_\_\_

**Marks :** 1

- 1 .  $45^\circ$**
- 2 .  $90^\circ$
- 3 .  $80^\circ$
- 4 .  $60^\circ$

( This Answer is Correct )

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**Q 74 :** In a triangle if all angles are equal, then the measure of each angle is \_\_\_\_\_

**Marks :** 1

- 1 .  $45^\circ$
- 2 .  $90^\circ$
- 3 .  $80^\circ$
- 4 .  $60^\circ$**

( This Answer is Correct )

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**Q 75 :** Which is the longest side of a right angled triangle?

**Marks :** 1

- 1 . base
- 2 . perpendicular
- 3 . hypotenuse**
- 4 . nothing is fixed

( This Answer is Correct )

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**Q 76 :** How long is the diagonal(diameter) of a monitor in inches with height and width - 27in and 36in respectively?

**Marks :** 1

- 1 . 90
- 2 . 31
- 3 . 24
- 4 . 45**

( This Answer is Correct )

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**Q 77 :** Which of the listed side lengths CAN be sides of a right triangle?

**Marks :** 1

- 1 . 7,8,9
- 2 . 6,7,8
- 3 . 5,6,7
- 4 . 3,4,5

( This Answer is Correct )

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**Q 78 :** A triangle whose sides are 15cm, 36cm, and 39cm is

**Marks :** 1

- 1 . right angled
- 2 . equilateral
- 3 . isosceles
- 4 . scalene triangle

( This Answer is Correct )

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**Q 79 :**  $(x^2 + 1/x^2)(x + 1/x)(x - 1/x)$

**Marks :** 1

- 1 .  $x^4 + 1/x^4$
- 2 .  $x^4 - 1/x^4$
- 3 .  $x^4 - 2 + 1/x^4$
- 4 .  $x^4 + 2 + 1/x^4$

( This Answer is Correct )

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**Q 80 :** In the evening, the shadow of an object is very long due to the low position of the Sun. A 20m high lamp post makes a 99m long shadow. What is the distance from the top of the pole to the top of its shadow in metre?

**Marks :** 1

- 1 . 97
- 2 . 101
- 3 . 79
- 4 . 119

( This Answer is Correct )

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