

A _____ is 3-dimensional object shaped like a ball; with every point on its surface is the same distance from the center.

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Select the correct option

sphere



pyramid

cube

tetrahedron

Question # 4 of 5 (Start time: 02:37:54 PM, 06 March 2022)

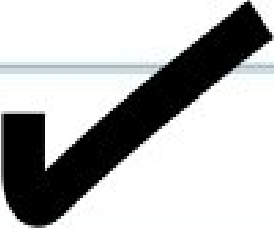
Total Marks: 1

The curve $(x^2 + y^2)x - 2ay^2 = 0$ has tangents at origin as $y^2 = 0$, then the origin is a

Select the correct option

[Reload Math Equations](#)

| | | |
|-----------------------|-----------------|---|
| <input type="radio"/> | Conjugate point | Download More Quizzes Files From VUAnswer.com |
| <input type="radio"/> | Node | |
| <input type="radio"/> | Isolated point | |
| <input type="radio"/> | Cusp | |



[Click to Show Answer & Move to Next Question](#)

Question # 1 of 5 (Start time: 02:35:14 PM, 06 March 2022)

Total Marks: 1

If the elements of a cylinder are normal to a plane, then it is known as _____ with respect to that plane.

Select the correct option

 right cylinder sphere cone paraboloid

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Question # 2 of 5 (Start time: 02:36:02 PM, 06 March 2022)

Total Marks: 1

Trace of a cone $x^2 + \frac{y^2}{9} = z^2$, in xz - plane is ____.

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Select the correct option



| | |
|-----------------------|-----------------------|
| <input type="radio"/> | no trace |
| <input type="radio"/> | $x = \pm z$ |
| <input type="radio"/> | $x = \pm \frac{y}{3}$ |
| <input type="radio"/> | $y = \pm 3z$ |



Question # 3 of 5 (Start time: 02:36:50 PM, 06 March 2022)

Total Marks: 1

$$\frac{x^2}{3^2} + \frac{y^2}{4^2} = 1, \text{ is the equation of _____ cylinder.}$$

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Select the correct option

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| | |
|----------------------------------|------------|
| <input type="radio"/> | parabolic |
| <input checked="" type="radio"/> | elliptic |
| <input type="radio"/> | hyperbolic |
| <input type="radio"/> | circular |

Question # 5 of 5 (Start time: 02:34:26 PM, 06 March 2022)

If two real branches of a curve passing through the double point are real and tangents to them are coincident then the double point is a

Select the correct option

- | | |
|-----------------------|-----------------|
| <input type="radio"/> | Conjugate point |
| <input type="radio"/> | Cusp |
| <input type="radio"/> | Node |
| <input type="radio"/> | All of them |
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Question # 4 of 5 (Start time: 02:33:46 PM, 06 March 2022)

When $a = b = c$, the ellipsoid $\frac{x^2}{a^2} + \frac{y^2}{b^2} + \frac{z^2}{c^2} = 1$, becomes the _____.

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Select the correct option

paraboloid

sphere

hyperboloid

cone

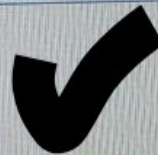


Question # 3 of 5 (Start time: 02:32:44 PM, 06 March 2022)

In curve $y^2 = x(x - a)^2$, the singular point $(a, 0)$ is a when $f_{xx}(a, 0) = -2a$, $f_{yy}(a, 0) = 2$ and $f_{xy}(a, 0)$

Select the correct option

- | | |
|-----------------------|-----------------|
| <input type="radio"/> | Cusp |
| <input type="radio"/> | Conjugate point |
| <input type="radio"/> | Node |
| <input type="radio"/> | Isolated point |



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Question # 4 of 5 (Start time: 01:01:14 PM, 06 March 2022)

Total Marks: 1

$\frac{x^2}{4} + \frac{y^2}{9} + 1 = \frac{z^2}{16}$, is an equation of _____.

Select the correct option

 Reload Math Equations


- | | |
|----------------------------------|---------------------------|
| <input type="radio"/> | Hyperboloid of one sheet |
| <input checked="" type="radio"/> | Hyperboloid of two sheets |
| <input type="radio"/> | Paraboloid |
| <input type="radio"/> | Ellipsoid |
- 

Question # 1 of 5 (Start time: 02:30:15 PM, 06 March 2022)

If $(f_{xx})^2 - f_{xx}f_{yy} > 0$, then the double point (x, y) would be a

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Select the correct option

- | | |
|----------------------------------|------------------|
| <input checked="" type="radio"/> | Node |
| <input type="radio"/> | Isolated point |
| <input type="radio"/> | Both (a) and (b) |
| <input type="radio"/> | Cusp |
- 

Question # 2 of 5 (Start time: 02:31:49 PM, 06 March 2022)

In cylinder each line through the curve and _____ to the line is called an element (or ruling) of the cylinder.

Select the correct option

- (b) parallel
- (d) both (a) and (b)
- (c) center
- (a) perpendicular

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Question # 5 of 5 (Start time: 01:02:05 PM, 06 March 2022)

Total Marks: 1


If $(f_{xy})^2 - f_{xx}f_{yy} > 0$, then the double point (x, y) would be a

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Select the correct option

[Reload Math Equations](#)

- | | |
|-----------------------|------------------|
| <input type="radio"/> | Both (a) and (b) |
| <input type="radio"/> | Isolated point |
| <input type="radio"/> | Node |
| <input type="radio"/> | Cusp |
- 



Question # 5 of 5 (Start time: 01:56:52 PM, 06 March 2022)

Total Marks: 1

 $\frac{x^2}{16} + \frac{y^2}{25} = z$, is an equation of _____

Select the correct option

Reload Math Equations

- | | |
|----------------------------------|---------------------------|
| <input type="radio"/> | Hyperboloid of two sheets |
| <input type="radio"/> | Hyperbolic paraboloid |
| <input checked="" type="radio"/> | Elliptic paraboloid |
| <input type="radio"/> | Hyperboloid of one sheet |
- 
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Points of inflection and multiple points are the types of

Select the correct option



None of these



End points



Double point



Singular point



$$\frac{x^2}{3^2} + \frac{y^2}{4^2} = 1, \text{ is the equation of } \underline{\hspace{2cm}} \text{ cylinder.}$$


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Select the correct option

 Reload Math Equations

| | |
|-----------------------|------------|
| <input type="radio"/> | circular |
| <input type="radio"/> | parabolic |
| <input type="radio"/> | elliptic |
| <input type="radio"/> | hyperbolic |



Question # 4 of 5 (Start time: 01:55:29 PM, 06 March 2022)


Total Marks: 1

In cylinder each line through the curve and _____ to the line is called an element (or ruling) of the cylinder.

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Select the correct option

- | | |
|-----------------------|---|
| <input type="radio"/> | (d) both (a) and (b) |
| <input type="radio"/> | (a) perpendicular |
| <input type="radio"/> | (c) center |
| <input type="radio"/> | (b) parallel  |

$\frac{x^2}{4} + \frac{y^2}{9} + 1 = \frac{z^2}{16}$, is an equation of _____.

Select the correct option

[Reload Math Equations](#)



Hyperboloid of two sheets



Hyperboloid of one sheet



Paraboloid



Ellipsoid

If $(f_{xx})^2 - f_{xx}f_{yy} = 0$, then the double point (x, y) would be a

Select the correct option

[Reload Math Equations](#)



Node



Isolated point



None of above



Cusp




Question # 5 of 5 (Start time: 01:08:33 PM, 06 March 2022)

Total Marks: 1

A double point Q on a curve is a if there exist no real points of the curve in the neighborhood of R .

Select the correct option

[Reload Math Equations](#)

- | | |
|----------------------------------|------------------|
| <input type="radio"/> | Both (b) and (c) |
| <input type="radio"/> | Complex point |
| <input checked="" type="radio"/> | Conjugate point |
| <input type="radio"/> | Isolated point |
- 

Question # 3 of 5 (Start time: 12:59:50 PM, 06 March 2022)

Total Marks: 1

The graph of $f(x) = |x|$ at $x = 0$ has a

Select the correct option

 Reload Math Equations

- | | |
|----------------------------------|------------------|
| <input checked="" type="radio"/> | Cusp |
| <input type="radio"/> | Both (a) and (b) |
| <input type="radio"/> | Derivative |
| <input type="radio"/> | Node |

$\frac{x^2}{64} + \frac{y^2}{81} + 1 = \frac{z^2}{100}$, is an equation of _____

Select the correct option

 Reload Math Equations

- | | |
|-----------------------|---------------------------|
| <input type="radio"/> | Hyperboloid of one sheet |
| <input type="radio"/> | Paraboloid |
| <input type="radio"/> | Ellipsoid |
| <input type="radio"/> | Hyperboloid of two sheets |




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$\frac{x^2}{16} + \frac{y^2}{25} = z$, is an equation of _____

Select the correct option



- | | |
|-----------------------|--|
| <input type="radio"/> | Hyperboloid of two sheets |
| <input type="radio"/> | Elliptic paraboloid  |
| <input type="radio"/> | Hyperbolic paraboloid |
| <input type="radio"/> | Hyperboloid of one sheet |

To discuss the nature of a double point, we have to calculate the

Select the correct option



Both (a) and (b)



Tangents



Binormal



Normal

In curve $y^2 = x(x - a)^2$, the singular point $(a, 0)$ is a when $f_{xx}(a, 0) = -2a$, $f_{yy}(a, 0) = 2$ and $f_{xy}(a, 0) = 0$.

Select the correct option

[Reload Math Equations](#)



Cusp



Isolated point



Node



Conjugate point

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Question # 3 of 5 (Start time: 12:54:35 PM, 06 March 2022)

Total Marks: 1

If $(f_{xx})^2 - f_{xx}f_{yy} < 0$, then the double point (x, y) would be a

Select the correct option

[Reload Math Equations](#)



All of them



Cusp



Node



Isolated point



The flat shapes are studied in _____ geometry.

Select the correct option



solid



differential



plane



spherical

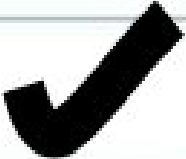
Question # 1 of 5 (Start time: 12:52:24 PM, 06 March 2022)

Total Marks: 1

$$\frac{x^2}{9} + \frac{y^2}{16} + \frac{z^2}{16} = 1, \text{ is the equation of } \underline{\hspace{2cm}}$$

Select the correct option

[Revised Math Equations](#)

- | | |
|----------------------------------|-------------|
| <input checked="" type="radio"/> | ellipsoid |
| <input type="radio"/> | hyperboloid |
| <input type="radio"/> | paraboloid |
| <input type="radio"/> | cone |
- 

If two real branches of a curve passing through the double point are real and tangents to them are distinct then the double point is a

Select the correct option

- | | |
|----------------------------------|----------------|
| <input type="radio"/> | Cusp |
| <input type="radio"/> | Isolated point |
| <input type="radio"/> | None of these |
| <input checked="" type="radio"/> | Node |

Question # 5 of 5 (Start time: 01:43:41 PM, 06 March 2022)

Total Marks: 1

If $(f_{xy})^2 - f_{xx}f_{yy} = 0$, then the double point (x, y) would be a

Select the correct option

[Reload Math Equations](#)

- | | |
|----------------------------------|----------------|
| <input type="radio"/> | Node |
| <input type="radio"/> | Isolated point |
| <input type="radio"/> | None of above |
| <input checked="" type="radio"/> | Cusp |

If $f(x) = (x - 1)^{2/3} - 3(x - 1)$ and $f'(x) = \frac{2}{3(x - 1)^{1/3}} - 3$ then the singular point of $f(x)$ is

Select the correct option

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-1



2



0



1

Ellipsoid is symmetrical about _____.

Select the correct option



(a) xy-plane



(c) xz-plane



(b) yz-plane



(d) All (a),(b) and (c)




Question # 2 of 5 (Start time: 12:49:13 PM, 06 March 2022)

Total Marks: 1

$$\frac{x^2}{16} + \frac{y^2}{25} = \frac{z^2}{36}, \text{ is the equation of } \underline{\hspace{2cm}}.$$

Select the correct option



- | | |
|----------------------------------|------------|
| <input checked="" type="radio"/> | sphere |
| <input type="radio"/> | paraboloid |
| <input type="radio"/> | cone |
| <input type="radio"/> | cylinder |
- 

Question # 1 of 5 (Start time: 12:48:39 PM, 06 March 2022)


Total Marks: 1

If $f(x) = (x - 1)^{2/3} - 3(x - 1)$ and $f'(x) = \frac{2}{3(x - 1)^{1/3}} - 3$ then the singular point of $f(x)$ is

Select the correct option

[Reload Math Equations](#)

| | |
|----------------------------------|----|
| <input type="radio"/> | -1 |
| <input type="radio"/> | 2 |
| <input checked="" type="radio"/> | 1 |
| <input type="radio"/> | 0 |




Question # 5 of 5 (Start time: 12:47:41 PM, 06 March 2022)

Total Marks: 1

$x^2 + \frac{y^2}{16} - \frac{z^2}{25} = 1$, is an equation of _____.

Select the correct option

[Reload Math Equations](#)

- | | |
|-----------------------|---------------------------|
| <input type="radio"/> | Hyperboloid of two sheets |
| <input type="radio"/> | Ellipsoid |
| <input type="radio"/> | Paraboloid |
| <input type="radio"/> | Hyperboloid of one sheet |
- 

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A _____ is 3-dimensional object shaped like a ball; with every point on its surface is the same distance from the center.

Select the correct option



cube



pyramid



sphere

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tetrahedron

Points of inflection and multiple points are the types of

Select the correct option



Singular point



None of these



End points



Double point

A double point Q on a curve is a if there exist no real points of the curve in the neighborhood of R.

Select the correct option

 Reload Math Equations



Isolated point



Conjugate point



Both (b) and (c)



Complex point

Click to Save Answer & Move to Next Question

To discuss the nature of a double point, we have to calculate the

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Select the correct option



Both (a) and (b)



Binormal



Tangents



Normal



If $(f_{xy})^2 - f_{xx}f_{yy} < 0$, then the double point (x, y) would be a

Select the correct option


[Reload Math Equations](#)

- | | |
|----------------------------------|----------------|
| <input type="radio"/> | All of them |
| <input type="radio"/> | Cusp |
| <input checked="" type="radio"/> | Isolated point |
| <input type="radio"/> | Node |

[Click to Save Answer & Move to Next Question](#)

If the elements of a cylinder are normal to a plane, then it is known as _____ with respect to that plane.

Select the correct option

- | | |
|-----------------------|----------------|
| <input type="radio"/> | sphere |
| <input type="radio"/> | paraboloid |
| <input type="radio"/> | cone |
| <input type="radio"/> | right cylinder |
- 

The flat shapes are studied in _____ geometry.

Select the correct option



differential



plane



solid




spherical

When $a = b = c$, the ellipsoid $\frac{x^2}{a^2} + \frac{y^2}{b^2} + \frac{z^2}{c^2} = 1$, becomes the _____.

Select the correct option


 Reload Math Equations

- | | |
|-----------------------|-------------|
| <input type="radio"/> | sphere |
| <input type="radio"/> | paraboloid |
| <input type="radio"/> | hyperboloid |
| <input type="radio"/> | cone |
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- 

$$\frac{x^2}{3^2} + \frac{y^2}{4^2} = 1, \text{ is the equation of } \underline{\hspace{2cm}} \text{ cylinder.}$$

Select the correct option

[Reload Math Equations](#)


- | | |
|-----------------------|------------|
| <input type="radio"/> | elliptic |
| <input type="radio"/> | hyperbolic |
| <input type="radio"/> | circular |
| <input type="radio"/> | parabolic |
- 

Question # 5 of 5 (Start time: 12:33:31 PM, 06 March 2022)

Total Marks: 1

If two real branches of a curve passing through the double point are real and tangents to them are coincident then the double point is a

Select the correct option

| | | |
|-----------------------|-----------------|---|
| <input type="radio"/> | Cusp |  |
| <input type="radio"/> | Conjugate point | |
| <input type="radio"/> | Node | |
| <input type="radio"/> | All of them | |

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For the curve $x^3 + y^3 - 3axy = 0$, the tangents at the origin are $x = 0$ and $y = 0$, then the origin is a

Select the correct option

[Reload Math Equations](#)



Isolated point



Node



None of these




Cusp

Question # 5 of 5 (Start time: 12:32:15 PM, 06 March 2022)

A point on the curve through which r branches of the curve pass is called Multiple point of

Select the correct option



- | | |
|-----------------------|----------------|
| <input type="radio"/> | pth order |
| <input type="radio"/> | rth order |
| <input type="radio"/> | sth order |
| <input type="radio"/> | Multiple order |
- 

In cylinder each line through the curve and _____ to the line is called an element (or ruling) of the cylinder.

Select the correct option



(c) center



(d) both (a) and (b)



(b) parallel



(a) perpendicular

$$\frac{x^2}{16} + \frac{y^2}{25} = \frac{z^2}{36}, \text{ is the equation of } \underline{\hspace{2cm}}.$$

Select the correct option



paraboloid



cylinder



sphere



cone

Points of inflection and multiple points are the types of

Select the correct option



Singular point



Double point



End points



None of these

To discuss the nature of a double point, we have to calculate the


Select the correct option

| | |
|----------------------------------|------------------|
| <input type="radio"/> | Normal |
| <input checked="" type="radio"/> | Tangents |
| <input type="radio"/> | Both (a) and (b) |
| <input type="radio"/> | Binormal |



$x^2 + \frac{y^2}{16} - \frac{z^2}{25} = 1$, is an equation of _____.

Select the correct option

| | |
|-----------------------|---|
| <input type="radio"/> | Ellipsoid |
| <input type="radio"/> | Hyperboloid of one sheet  |
| <input type="radio"/> | Hyperboloid of two sheets |
| <input type="radio"/> | Paraboloid |

The functions $y = 4\sqrt{x}$ and $y = -4\sqrt{x}$ are two branches of parabola

Select the correct option



$$y^2 = 4x$$



$$y = 16x$$



$$y^2 = -4x$$



$$y^2 = 16x$$

Question # 1 of 5 (Start time: 12:28:47 PM, 06 March 2022)

$$x^2 + \frac{y^2}{16} - \frac{z^2}{25} = 1, \text{ is an equation of } \underline{\hspace{2cm}}.$$

Select the correct option

| | |
|-----------------------|---------------------------|
| <input type="radio"/> | Ellipsoid |
| <input type="radio"/> | Hyperboloid of two sheets |
| <input type="radio"/> | Paraboloid |
| <input type="radio"/> | Hyperboloid of one sheet |

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A branch of geometry that studies relations concerning lengths and angles of triangles is known as _____.

Select the correct option



solid geometry



trigonometry



plane geometry



spherical geometry

Type text here

Ellipsoid is symmetrical about _____.

Select the correct option



(d) All (a),(b) and (c)



(c) xz-plane



(a) xy-plane



(b) yz-plane

Question # 3 of 5 (Start time: 12:22:15 PM, 06 March 2022)

Total Marks: 1

$\frac{x^2}{4} + \frac{y^2}{9} + 1 = \frac{z^2}{16}$, is an equation of _____.

Select the correct option

[Reload Math Equations](#)

| | |
|----------------------------------|---------------------------|
| <input checked="" type="radio"/> | Hyperboloid of two sheets |
| <input type="radio"/> | Paraboloid |
| <input type="radio"/> | Hyperboloid of one sheet |
| <input type="radio"/> | Ellipsoid |

Question # 2 of 5 | [Start Quiz](#) | [View All Questions](#) | [View All Answers](#)

$$\frac{x^2}{16} + \frac{y^2}{25} = \frac{z^2}{36}, \text{ is the equation of } \underline{\hspace{2cm}}.$$

Select the correct option

[Reload Math Equations](#)

| | |
|-----------------------|------------|
| <input type="radio"/> | cylinder |
| <input type="radio"/> | cone |
| <input type="radio"/> | paraboloid |
| <input type="radio"/> | sphere |



Which of the following is (are) related to the surface of sphere?

Select the correct option



Spherical geometry



Spherical trigonometry



Solid geometry




Plane geometry

If two tangents at the origin are imaginary then the origin is a

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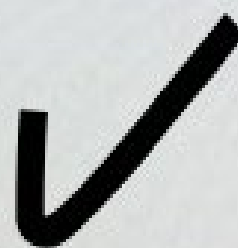
Select the correct option

| | |
|-----------------------|---|
| <input type="radio"/> | None of these |
| <input type="radio"/> | Node |
| <input type="radio"/> | Cusp |
| <input type="radio"/> | Conjugate point  |

$$\frac{x^2}{36} + \frac{y^2}{49} = z, \text{ is an equation of } \underline{\hspace{2cm}}.$$

Select the correct option

| | |
|-----------------------|---------------------------|
| <input type="radio"/> | Elliptic paraboloid |
| <input type="radio"/> | Hyperbolic paraboloid |
| <input type="radio"/> | Hyperboloid of two sheets |
| <input type="radio"/> | Hyperboloid of one sheet |



v

Question # 3 of 5 (Start time: 12:17:04 PM, 06 March 2022)

A branch of geometry that studies relations concerning lengths and angles of triangles is known as _____

Select the correct option

- | | |
|----------------------------------|--------------------|
| <input checked="" type="radio"/> | trigonometry |
| <input type="radio"/> | solid geometry |
| <input type="radio"/> | spherical geometry |
| <input type="radio"/> | plane geometry |

Question # 2 of 5 (Start time: 12:16:16 PM, 06 March 2022)

If $(f_{xy})^2 - f_{xx}f_{yy} > 0$, then the double point (x, y) would be a

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Select the correct option:

- | | |
|-----------------------|------------------|
| <input type="radio"/> | Isolated point |
| <input type="radio"/> | Both (a) and (b) |
| <input type="radio"/> | Cusp |
| <input type="radio"/> | Node |



Question # 1 of 5 (Start time: 12:15:03 PM, 06 March 2022)

The graph of $f(x) = |x|$ at $x = 0$ has a

Select the correct option

- | | |
|-----------------------|------------------|
| <input type="radio"/> | Derivative |
| <input type="radio"/> | Node |
| <input type="radio"/> | Cusp |
| <input type="radio"/> | Both (a) and (b) |

