

CGL - CHSL
20+ Lakh

90% → pre

(14+)

→ Videos + Revision

(5) + (2)

46.11

Revise

Mains

140+ X

170+

190+ ✓✓

अब तो OFFICER बन के रहेंगे

- ✓ **CHAPTERWISE**
- ✓ **MOCK TEST**
- ✓ **LATEST QUESTIONS ASKED BY
TCS IN VARIOUS EXAMS**
- ✓ **DIVIDED ON DIFFERENT LEVELS.**



अपनी मंज़िल को भुला कर जिया तो क्या जिया
है दम तुझमे तो उसे पा के दिखा
लिखे दे खून से अपने कामयाबी की कहानी
और बोल उस किस्मत को है दम तो मिटा के दिखा



Algebra -2

(बीजगणित)

Concept of

Perfect Square

$$x^2 = 9$$

$$x = \pm \sqrt{9}$$

$$x = \pm 3$$

~~$$\sqrt{16} = \pm 4$$~~

$$\sqrt{16} = 4$$

$$\sqrt{9} = 3$$

$$\sqrt{2s} = s$$

$$a-3=0 \Rightarrow a=3$$

$$\sqrt{3+4+9}$$

$$= \sqrt{16} = 4$$

If $(a - 3)^2 + (b - 4)^2 + (c - 9)^2 = 0$,

then $\sqrt{a+b+c} = ?$

CHSL

(a) -4

(c) ± 4

☒ (b) 4

(d) ± 2

If $(a - 4)^2 + (b - 5)^2 + (c - 3)^2 = 0$,

↓
4

↓
5

↓
3

$$\textcircled{3} = \frac{4+5}{3}$$

then the value of $\frac{a+b}{c}$ is

(a) 0

(c) 1

✓ (b) 3

(d) -3

$$a^2 + b^2 + 2ab = 0$$

$$\Rightarrow (a+b)^2 = 0$$

$$a^2 + 4 + 4a = 0$$

$$(a+2)^2 = 0$$

$$a+2=0$$

$$a = -2$$

If $a^2 + b^2 + c^2 = 2(a - b - c) - 3$, then the value of $4a - 3b + 5c$ is -

- (a) 2
(c) 5

- (b) 3
(d) 6

$$\begin{aligned} a &= 1 \\ b &= -1 \\ c &= -1 \end{aligned}$$

$$4 + 3 - 5 = 2$$

2018-2020
CGL
CHSL
MTS

If $x^2 + y^2 + z^2 = 2(x + z - 1)$, then the value of $x^3 + y^3 + z^3$ is

☒ (a) 2

(b) 0

(c) -1

(d) 1

CHL Mains

$$x = 1$$

$$y = 0$$

$$z = 1$$

$$1 + 0 + 1$$

If $16x^2 + 9y^2 + 4z^2 = 24(x - y + z) - 61$, then the value of $(xy + 2z)$ is :

CGL CGL 4 June 2019 (Afternoon)

(a) 1

(b) 2

(c) 3

(d) 5

$$\begin{aligned} x &= \frac{12}{5} \\ y &= -\frac{4}{5} \\ z &= \frac{3}{5} \end{aligned}$$

$$xy + 2z = \left(\frac{12}{5} \times -\frac{4}{5}\right) + 2 \times \frac{3}{5} = -\frac{48}{25} + \frac{12}{5} = \frac{-48 + 60}{25} = \frac{12}{25}$$

If $9a^2 + 4b^2 + c^2 + 21 = 4(3a + b - 2c)$, then the value of $(9a + 4b - c)$ is :

CGL CGL 7 June 2019 (Afternoon)

- (a) 2
(c) 6

- (b) 16
(d) 12

$a = 6$
 $b = 2$
 $c = -4$

$6 + 2 + 4$

If $a^2 + b^2 + c^2 + 27 = 6(a + b + c)$, then the value of $\sqrt[3]{a^3 + b^3 + c^3}$ is :

$$2(3a + 3b + 3c)$$

CGL CGL 10 June 2019 (Morning)

- (a) 3
(c) 9

- (b) 1
(d) 6

$$\begin{aligned} a &= 3 \\ b &= 3 \\ c &= 3 \end{aligned}$$

$$\sqrt[3]{a^3} = a = 3$$

1500+ Live

If $a^2 + 4b^2 + 49c^2 + 18 = 2(2b + 28c - a)$, then the value of $(3a + 2b + 7c)$ is :

SSC CHSL 2 July 2019 (Morning)

(a) 0

✓ (b) 2

(c) 1

(d) 3

$$a = -1$$

$$b = 2$$

$$c = 1$$

$$3a + 2b + 7c$$

$$-3 + 4 + 7$$

If $a^2 + b^2 + c^2 + 216 = 12(a + b - 2c)$, then
 find the value of $\sqrt{ab + bc - ca}$.

CPO 2019 23/11/2020 (Morning)

- (a) 6
 (c) 3

- (b) 4
 (d) 8

$$\begin{aligned} a &= 6 \\ b &= 6 \\ c &= -12 \end{aligned}$$

$$\begin{aligned} &= \sqrt{ab + bc - ca} \\ &= \sqrt{36 - 72 + 72} \\ &= 6 \end{aligned}$$

Comment
Box

If $a^2 + b^2 + c^2 + 84 = 4(a - 2b + 4c)$, then find the value of $\sqrt{ab - bc + ca}$.

CPO 2019 24/11/2020 (Evening)

(a) $5\sqrt{10}$

(b) $4\sqrt{10}$

(c) $2\sqrt{10}$

(d) $\sqrt{10}$



SYMMETRY

$$x=y=z$$

$$x^2 + x^2 + x^2 = 1$$

If $xy + yz + zx = 1$, then

$$\frac{1+y^2}{(x+y)(y+z)} = ?$$

(a) 0

(c) 2

$$3x^2 = 1$$

$$x^2 = \frac{1}{3}$$

☒ (b) 1

(d) 3

$$\frac{1+x^2}{4x^2}$$

$$= \frac{1+\frac{1}{3}}{4 \times \frac{1}{3}} = \frac{\frac{4}{3}}{\frac{4}{3}} = 1$$

$$\left(\frac{4x-3}{x}\right) \times 3 = 0$$

$$\Rightarrow 4x-3=0$$

$$\Rightarrow x = \frac{3}{4}$$

$$\frac{3}{x} = \frac{3 \times 4}{3}$$

If $\frac{4x-3}{x} + \frac{4y-3}{y} + \frac{4z-3}{z} = 0$ then

$$\frac{1}{x} + \frac{1}{y} + \frac{1}{z} \text{ is}$$

(a) 9

(c) 4

$$x=y=z$$

(b) 3

(d) 6

$$\left(\frac{2+a}{a}\right) + \left(\frac{2+a}{a}\right) + \left(\frac{2+a}{a}\right) = 4$$

$$\left(\frac{2+a}{a}\right) \times 3 = 4$$

$$6 + 3a = 4a$$

$$\Rightarrow a = 6$$

If $\frac{2+a}{a} + \frac{2+b}{b} + \frac{2+c}{c} = 4$ then the value

of $\frac{(ab+bc+ca)}{abc}$ is

(a) 2

(b) 1

(c) 0

✓ (d) $\frac{1}{2}$

$$a = b = c$$

$$= \frac{3a^2}{a^3} = \frac{3}{a} = \frac{3}{6} = \frac{1}{2}$$

$$x = y = z$$

$$\frac{15x^4}{15x^4} = 1$$

If $x^2 + y^2 + z^2 = xy + yz + zx$ then the value of

$$\left[\frac{3x^4 + 7y^4 + 5z^4}{5x^2y^2 + 7y^2z^2 + 3z^2x^2} \right] \text{ is}$$

(a) 2

(c) 0

(b) 1

(d) -1

$$a = b = c$$

$$\left(\frac{1}{a+1}\right) \times 3 = 2$$

$$3 = 2a + 2$$

$$1 = 2a \Rightarrow a = \frac{1}{2}$$

$$3 \times \frac{1}{4}$$

If $\frac{1}{a+1} + \frac{1}{b+1} + \frac{1}{c+1} = 2$. Find $a^2 + b^2 + c^2$

$$3a^2$$

(a) $\frac{3}{4}$

(b) $\frac{1}{6}$

(c) $\frac{1}{7}$

(d) $\frac{2}{5}$

CHSL
CPO

1 sec

$$x=y=z=1$$

$$\frac{1}{a+b+c}$$

If $\frac{x}{xa + yb + zc} = \frac{y}{ya + zb + xc} = \frac{z}{za + xb + yc}$

and $x + y + z \neq 0$ then each ratio is

(a) $\frac{1}{a - b - c}$

(b) $\frac{1}{a + b - c}$

(c) $\frac{1}{a - b + c}$

✓ (d) $\frac{1}{a + b + c}$

Can't Main



1000+ Live Students.

VALUE PUTTING

Concept of

$$a+b+c=0$$

$$\begin{aligned} a &= 1 \\ b &= -1 \\ c &= 0 \end{aligned}$$

$$\begin{aligned} a &= 2 \\ b &= -1 \\ c &= -1 \end{aligned}$$

(a) $\overset{1}{a} + \overset{-1}{b} + \overset{0}{c} = 0$ If $a + b + c = 0$, then the value of $\frac{a^2 + b^2 + \cancel{c^2}}{a^2 - \cancel{bc}}$
 (b) $\underset{2}{a} + \underset{-1}{b} + \underset{-1}{c} = 0$

(a) 0

(b) 1

(c) 2

(d) 3

$$= \frac{1+1}{1}$$

If $\overset{\perp}{a} + \overset{-1}{b} + \overset{\circ}{c} = 0$ then the value of $\frac{a^2 + b^2 + \cancel{c^2}}{ab + \cancel{bc} + \cancel{ca}}$

is

(a) 2

(c) 0

☒ (b) -2

(d) 4

$$\begin{aligned} &= \frac{a^2 + b^2}{ab} \\ &= \frac{1 + 1}{-1} \end{aligned}$$

If $a + b + c = 0$
_{1 -1 0}

then $(a + b - c)^2 + (b + \cancel{c} - a)^2 + (\cancel{c} + a - b)^2 = ?$
_{1 -1 0 -1 -1 1 +1}

(a) 0
₀

(b) $8abc$ 0

☒ (c) $4(a^2 + b^2 + \cancel{c^2})$
_{1 +1}

(d) $4(ab + \cancel{bc} + \cancel{ca})$

$$4 + 4 = 8$$

If $a + b = 1$, then $a^4 + \cancel{b^4} - a^3 - \cancel{b^3} - 2\cancel{a^2b^2} + \cancel{ab}$ is

(a) 1

(b) 2

(c) 4

✓ (d) 0

$$= a^4 - a^3$$

$$= 1 - 1 = 0$$

$$y=0$$
$$x=1$$

If $x + \cancel{y} = 1 + \cancel{xy}$, then $x^3 + \cancel{y^3} - \cancel{x^3y^3}$ is

(a) 0

☒ (b) 1

(c) -1

(d) 2

If $a + b = 1$, find $a^3 + b^3 - ab - (a^2 - b^2)^2$

(a) -1

(b) 1

☒ (c) 0

(d) 2

$$\begin{aligned} & a^3 - a^4 \\ &= 1 - 1 \end{aligned}$$

$$a = y$$

$$b = -y$$

$$c = 2y$$

If $a = \cancel{x} + y$, $b = \cancel{x} - y$, $c = \cancel{x} + 2y$

then $a^2 + b^2 + c^2 - ab - bc - ca$ is
 $y^2 + y^2 + 4y^2 + y^2 + 2y^2 - 2y^2$

(a) $4y^2$

(b) $5y^2$

(c) $6y^2$

(d) $7y^2$

If $x = a + \frac{1}{a}$ and $y = a - \frac{1}{a}$ then

$= x^2$
 $= 4$

$\sqrt{x^4 + y^4 - 2x^2y^2}$ is equal to :

SSC CGL 6 June 2019 (Morning)

(a) $16a^2$

(b) 8

(c) $\frac{8}{a^2}$

✓ (d) 4

If $x = 2 - p$, then $x^3 + 6xp + p^3$ is equal to :

SSC CGL 7 June 2019 (Morning)

(a) 12

(b) 6

☒ (c) 8

(d) 4

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