MATHS

05:00 PM

PROBLEMS ON ALGEBRA

INDIAN RAILWAYS

RAILWAY NTPC 2019

BASIC POINTS

If $c + \frac{1}{c-3} = 3$ then $(c-3)^7 + \frac{1}{(c-3)^7} = ?$

A) 0
B) 4
C) 18
D) NOT

If $x^2 + 2 = 2x$ then find $x^4 - x^3 + x^2 + 2 = ?$

A) 0
B) 1
C) 4
D) NOT

If $ax + by = 6$, $bx - ay = 4$ and $(x^2 + y^2) = 4$ then find $(a^2 + b^2) = ?$

A) 10
B) 40
C) 20
D) NOT

If $(x - 9)^2 + (y + 5)^2 + (z - 4)^2 = 0$, then find the value of $(x + y - z)$.

A) 0
B) 1
C) 2
D) 3

If $a^2 + b^2 + c^2 = 2(a - b - c) - 3$ then find $(a + b - c) = ?$

A) 0

B) 1

C) -1

D) 2

If $x^2 + y^2 + z^2 + 4x - 6y + 8z - 29 = 0$ then find $(x - y + z) = ?$

A) 8

B) -8

C) 9

D) -9

If $\frac{1}{a-1}+\frac{2}{b-2}+\frac{3}{c-3}=10$ then $\frac{a}{a-1}+\frac{b}{b-2}+\frac{c}{c-3}=?$

A) 7

B) 13

C) 27

D) NOT

If $\frac{a^2+b^2+c^2}{ab+bc+ca} = 1$, then find the value of $\frac{a+b}{c} + \frac{b+c}{a} + \frac{c+a}{b}$.

A) 0

B) 3

C) 6

D) 3

If $x + \frac{1}{x-5} = 7$, then find the value of $x^2 + \frac{1}{x^2}$

A) 1
B) 2
C) CND
D) NOT

If $x^5+\frac{1}{x^2}=32\frac{1}{4}$, then find the value of $x^3+\frac{1}{x^4}$

A) $8\frac{1}{16}$

B) $16\frac{1}{8}$

C) 2

D) NOT

If $(x-3)$ is a factor of $x^3 - 2x^2 + 4x - k$ then find the value of k.

A) 10
B) 21
C) 20
D) NOT

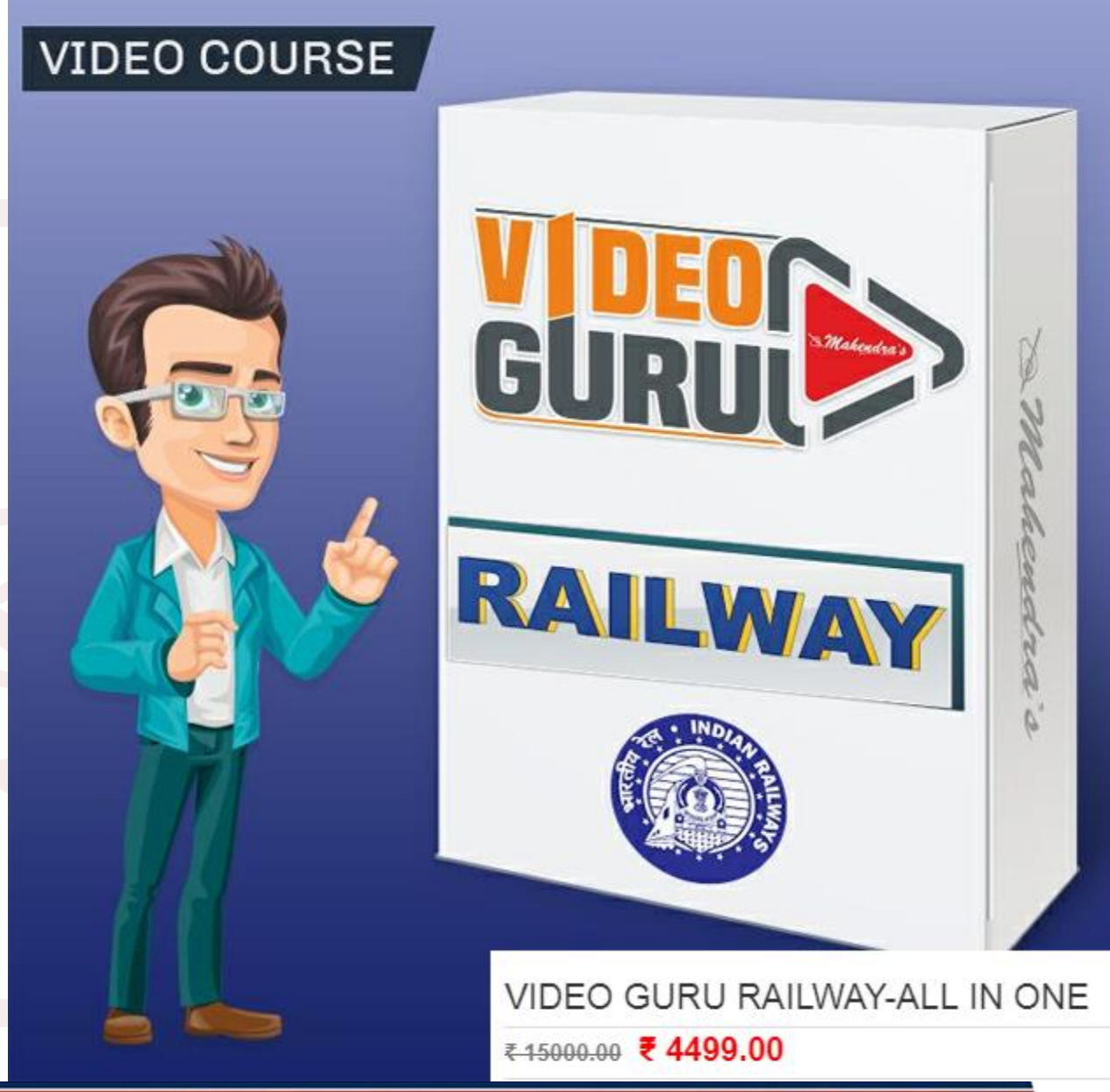
If $(x^2 - x + 1)$ is a factor of $2x^3 - 7x^2 + 7x - k + 2$ then find the value of k.

A) 5

B) 7

C) -7

D) NOT



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