

226. If  $x > 1$  and  $x^2 + \frac{1}{x^2} = 83$  then  $x^3 - \frac{1}{x^3} = ?$

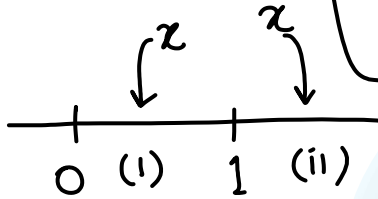
अगर  $x > 1$  और  $x^2 + \frac{1}{x^2} = 83$  है तो  $x^3 - \frac{1}{x^3} = ?$

a) 764

b) 750

~~c) 756~~

d) 760



(i)  $x = \frac{1}{2}, \frac{1}{3}, \frac{1}{4}$

$\frac{1}{x} = 2, 3, 4$

$x < \frac{1}{x}$   
 $x^2 < \frac{1}{x^2}$

(ii)  $x = 2, 3, 4$

$\frac{1}{x} = \frac{1}{2}, \frac{1}{3}, \frac{1}{4}$

$x > \frac{1}{x}$   $x - \frac{1}{x}$  +ve

$x - \frac{1}{x} = -ve$

$x^2 - \frac{1}{x^2} = -ve$

$\left(x - \frac{1}{x}\right)^2 = 81$

$x - \frac{1}{x} = \pm 9$   $x = 9$

$$\begin{array}{r} 729 \\ +27 \\ \hline 756 \end{array}$$

227. If  $x^4 + \frac{1}{x^4} = 119$ , and  $x > 1$ , then the value of  $x^3 + \frac{1}{x^3} = ?$

अगर  $x^4 + \frac{1}{x^4} = 119$ , और  $x > 1$  है तो  $x^3 + \frac{1}{x^3} = ?$

a) 36

b)  $16\sqrt{13}$

c) 18

~~d)  $10\sqrt{13}$~~

$$\left(x^2\right)^2 + \left(\frac{1}{x^2}\right)^2 + 2x^2 \cdot \frac{1}{x^2}$$

$$\left(x^2 + \frac{1}{x^2}\right)^2 = \sqrt{121} = 11$$

$$x + \frac{1}{x} = \sqrt{13}$$

$$13\sqrt{13} - 3\sqrt{13}$$

coaching center

228. If  $m^4 + \frac{1}{m^4} = 119$ , then  $m - \frac{1}{m} = ?$

अगर  $m^4 + \frac{1}{m^4} = 119$  है तो  $m - \frac{1}{m} = ?$

~~a)  $\pm 3$~~     $\pm 2$    b)  $4 \pm 2$    c)  $\pm 2$    d)  $\pm 1$

$$m^2 + \frac{1}{m^2} = 11$$
$$-2$$

$$m - \frac{1}{m} = \pm 3$$

coaching center

229. If  $x^4 + \frac{1}{x^4} = 322$ , then what is the value of  $x^3 - \frac{1}{x^3}$ ?

यदि  $x^4 + \frac{1}{x^4} = 322$  है, तो  $x^3 - \frac{1}{x^3}$  का मान क्या है?

a) 16

b) 96

~~c) 76~~

d) 46

$$x^2 + \frac{1}{x^2} = 18$$
$$-2 \quad -2$$

$$x - \frac{1}{x} = 4$$

↓  
64+12

coaching center

230. If  $x^8 - 1442x^4 + 1 = 0$ , then a possible value of  $x - \frac{1}{x}$  is:

यदि  $x^8 - 1442x^4 + 1 = 0$ , तो  $x - \frac{1}{x}$  का संभावित मान है:

a) 5

b) 8

c) 4

~~d) 6~~

50n ± 12

$\sqrt{1442}$

= 38

$\downarrow \div x^4$

$$x^4 + \frac{1}{x^4} = 1442$$

$+2 \qquad +2$

$$x^2 + \frac{1}{x^2} = 38$$

$-2 \qquad -2$

$$x - \frac{1}{x} = \pm 6$$

23). If  $x^4 + \frac{1}{x^4} = 3842$ , then the positive value of  $x + \frac{1}{x}$  will be:

यदि  $x^4 + \frac{1}{x^4} = 3842$  है, तो  $x + \frac{1}{x}$  का धनात्मक मान ज्ञात करें।

- a) 12    ~~b) 8~~    c) 10    d) 6

son ± 12

$$\sqrt{\frac{3844}{6}}$$

$$x^2 + \frac{1}{x^2} = 62$$

$$x + \frac{1}{x} = 8$$

coaching center

232. If  $x > 0$  and  $x^4 + \frac{1}{x^4} = 2207$ , What is the value of  $(x^5 + \frac{1}{x^5})$ ?

यदि  $x > 0$  और  $x^4 + \frac{1}{x^4} = 2207$  है, तो  $(x^5 + \frac{1}{x^5})$  का मान क्या होगा?  $+2$   $+2$

- a) 15141   b) 15134   c) 15130   ~~d) 15127~~

$$x^2 + \frac{1}{x^2} = 47^{+2}$$

$$x + \frac{1}{x} = 7$$

2209  
  19  
---  
2209  
  19  
---  
47

$$\begin{array}{r} 343 \\ -21 \\ \hline 322 \end{array}$$

$$\left(x^3 + \frac{1}{x^3}\right) \left(x^2 + \frac{1}{x^2}\right) - \left(x + \frac{1}{x}\right)$$

$$= 332 \times 47 - 7$$

unit digit = 7

233. If  $x^4 + \frac{1}{x^4} = 6887$ , then the positive value of  $x - \frac{1}{x}$  is:

यदि  $x^4 + \frac{1}{x^4} = 6887$  है, तो  $x - \frac{1}{x}$  का घनात्मक मान ज्ञात करें।

a) 12

~~b) 9~~

c) 15

d) 8

$$x^2 + \frac{1}{x^2} = 83$$
$$\begin{array}{r} x^2 + \frac{1}{x^2} = 83 \\ -2 \qquad -2 \\ \hline \end{array}$$

$$x - \frac{1}{x} = 9$$

$$\begin{array}{r} 6889 \\ \hline \downarrow \\ 83 \end{array}$$

←  $100 - 17$

←  $\pm 17$

coaching center



234. If  $x^4 + \frac{1}{x^4} = 14159$ , Then a Possible Value of  $x + \frac{1}{x}$  is:  $+2$   $+2$

यदि  $x^4 + \frac{1}{x^4} = 14159$  है, तो  $x + \frac{1}{x}$  का संभव मान क्या है?

a) 81

b) 69

c) 11

d) 121

$$x^2 + \frac{1}{x^2} = 119$$

$+2$   $+2$

$$x + \frac{1}{x} = 11$$

$$\begin{array}{r} 119 \\ \underline{100} \\ 19 \end{array}$$

$\uparrow$   
 $100 + 19$

$\rightarrow \pm 11$

coaching center

235. If  $x^4 + \frac{1}{x^4} = \frac{257}{16}$  then find  $\frac{8}{13} \left(x^3 + \frac{1}{x^3}\right)$ , Where  $x > 0$ .

यदि  $x^4 + \frac{1}{x^4} = \frac{257}{16} + 2$  तो  $\frac{8}{13} \left(x^3 + \frac{1}{x^3}\right)$  ज्ञात कीजिए, जब  $x > 0$  है।

- a) 5      +2      b) 4      c) 6      d) 8

$$x^2 + \frac{1}{x^2} = \sqrt{\frac{257+32}{16}} = \frac{17}{4} + 2$$

$$x + \frac{1}{x} = \sqrt{\frac{25}{4}} = \frac{5}{2}$$

$$x^3 + \frac{1}{x^3} = \frac{125}{8} - \frac{15 \times 4}{2 \times 4} = \frac{65}{8}$$

$$\frac{8}{13} \times \frac{65}{8} = 5$$

coaching center

236. If  $\frac{x^8+1}{x^4} = 14$ , then the value of  $\frac{x^{12}+1}{x^6}$  is:

यदि  $\frac{x^8+1}{x^4} = 14$  है, तो  $\frac{x^{12}+1}{x^6}$  का मान क्या है?

a) 16

b) 14

~~c) 52~~

d) 64

$$x^4 + \frac{1+2}{x^4} = 14+2$$

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

$$x^6 + \frac{1}{x^6} = 64 - 12 = 52$$

3x

coaching center

237. If  $a^4 + \frac{1}{a^4} = 50$ ,  $a > 0$ , then find the value of  $a^3 + \frac{1}{a^3}$

यदि  $a^4 + \frac{1}{a^4} = 50$ ,  $a > 0$ , तो  $a^3 + \frac{1}{a^3}$  का मान ज्ञात कीजिए।

$$a^2 + \frac{1}{a^2} = \sqrt{52} = 2\sqrt{13}$$

$$(\sqrt{2})^3 = 2\sqrt{2}$$

$$(\sqrt{5})^3 = 5\sqrt{5}$$

$$a + \frac{1}{a} = \sqrt{2\sqrt{13} + 2} = \sqrt{2(\sqrt{13} + 1)}$$

$$a^3 + \frac{1}{a^3} = 2(\sqrt{13} + 1) \sqrt{2(\sqrt{13} + 1)} - 3 \sqrt{2(\sqrt{13} + 1)}$$

$$= \sqrt{2(\sqrt{13} + 1)} \left( 2\sqrt{13} + 2 - 3 \right)$$

a)  $\sqrt{2(1 + \sqrt{13}) + (-1 + 2\sqrt{13})}$

b)  $\sqrt{2(1 - \sqrt{13}) - (-1 + 2\sqrt{13})}$

c)  $\sqrt{2(1 + \sqrt{13})(-1 - 2\sqrt{13})}$

d)  $\sqrt{2(1 + \sqrt{13})(-1 + 2\sqrt{13})}$

238. If  $a^2 + \frac{1}{(a-3)^2} - 6a = 9$ , then  $(a-3) - \frac{1}{(a-3)}$ ?

यदि  $a^2 + \frac{1}{(a-3)^2} - 6a = 9$  है तो  $(a-3) - \frac{1}{(a-3)}$  का मान होगा :

~~a) 4~~

b)  $2\sqrt{5}$

c) 3

d) An Imaginary no.

$$(a^2 - 6a) + \frac{1}{(a-3)^2} = 9 + 9$$

$$(a-3)^2 + \frac{1}{(a-3)^2} = 18 - 2$$

$$(a-3) - \frac{1}{(a-3)} = \sqrt{16} = 4$$

239. If  $x^2 + x = 5$ , then find the value of  $(x + 3)^3 + \frac{1}{(x+3)^3}$ .

यदि  $x^2 + x = 5$  है, तो  $(x + 3)^3 + \frac{1}{(x+3)^3}$  का मान ज्ञात कीजिये।

~~a) 110~~

b) 140

c) 125

d) 120

$$(x+3) + \frac{1}{(x+3)} = \frac{x^2 + 6x + 9 + 1}{x+3} = \frac{5x + 15}{x+3} = \frac{5(x+3)}{(x+3)} = 5$$

$$| 25 - 5 \times 3 = 110$$

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$$\begin{array}{l} x + \frac{1}{x} = \checkmark \\ x - \frac{1}{x} = \checkmark \end{array} \quad \rightarrow \quad x^3 + \frac{1}{x^3} = ?$$

coaching center

$$x^2 + x = 5$$

$$x+3 = t$$

$$x = t-3$$

$$x = t-3$$

$$t^2 - 6t + 9 + t - 3 = 5$$

$$\Rightarrow t^2 - 5t + 1 = 0$$

$$\Rightarrow t + \frac{1}{t} = 5$$

$$(x+3)^3 + \frac{1}{(x+3)^3} = ?$$

$$t^3 + \frac{1}{t^3}$$

240. If  $x^2 + 4x - 4 = 0$ , then  $(x + 5)^3 + \frac{1}{(x+5)^3} = ?$

यदि  $x^2 + 4x - 4 = 0$  है, तो  $(x + 5)^3 + \frac{1}{(x+5)^3}$  का मान होगा :

a) 234

b) 198,  $4-4x$

c) 216

d) 110

$$(x+5) + \frac{1}{(x+5)} = \frac{x^2 + 10x + 25 + 1}{x+5} = \frac{6x + 30}{x+5} = 6$$

$$216 - 18 = 198$$

coaching center



24). If  $x^2 - 12x + 33 = 0$ , then what is the value of  $(x - 4)^2 + \left[\frac{1}{(x-4)^2}\right]$ ?

यदि  $x^2 - 12x + 33 = 0$  है, तो  $(x - 4)^2 + \left[\frac{1}{(x-4)^2}\right]$  का मान क्या है?

a) 16

~~b) 14~~

c) 18

d) 20

$$(x-4) + \frac{1}{(x-4)} = \frac{\cancel{x^2} - 8x + 16 + 1}{x-4} = \frac{4x - 16}{x-4} = 4$$

$$16 - 2 = 14$$

coaching center

242. If  $x^2 + 2x = 4$ , then  $(x + 3)^3 - \frac{1}{(x+3)^3} = ?$

यदि  $x^2 + 2x = 4$  है, तो  $(x + 3)^3 - \frac{1}{(x+3)^3}$  का मान होगा :

~~a) 76~~

b)  $64 + 2x$

c) 52

d) 36

$$(x+3) - \frac{1}{(x+3)} = \frac{x^2 + 6x + 9 - 1}{x+3} = \frac{4x + 12}{x+3} = 4$$

$$64 + 12 = 76$$

coaching center

243. If  $x^2 - 16x + 59 = 0$ , then what is the value of  $(x - 6)^2 + \frac{1}{(x-6)^2}$ ?

यदि  $x^2 - 16x + 59 = 0$  है, तो  $(x - 6)^2 + \frac{1}{(x-6)^2}$  का मान क्या है?

a) 14

b) 18

c) 16

d) 20

$$(x-6) + \frac{1}{(x-6)} = \frac{x^2 - 12x + 36 + 1}{x-6} = \frac{4x - 24}{x-6} \quad \times$$

$$16 + 2 = 18$$

4

coaching center

Misc.  $(x + \frac{1}{x})$

e1

*coaching center*

244. If  $\sqrt{x} + \frac{1}{\sqrt{x}} = 3$ ,  $x > 0$ , then the value of  $x^2(x^2 - 47)$  is .

यदि  $\sqrt{x} + \frac{1}{\sqrt{x}} = 3$ ,  $x > 0$ , है, तो  $x^2(x^2 - 47)$  का मान होगा :

a) 0

b) 2

~~c) -1~~

d) 2

$$x + \frac{1}{x} = 9 - 2 = 7$$

$$x^2 + \frac{1}{x^2} = 47$$

$$\Rightarrow x^2 - 47 = -\frac{1}{x^2}$$

$$x^2 \times -\frac{1}{x^2} = -1$$

coaching center

245. If  $x^4 + x^{-4} = 47, (x > 0)$   
then the value of  $(2x - 3)^2$   
is:

अगर  $x^4 + x^{-4} = 47, (x > 0)$   
तो  $(2x - 3)^2$  का मान है:

- a) 2  
~~c) 5~~

- b) 3  
d) 4

$$x^4 + \frac{1}{x^4} = 47$$
$$+2 \quad +2$$

$$x^2 + \frac{1}{x^2} = 7$$
$$+2 \quad +2$$

$$x + \frac{1}{x} = 3$$

$$x - \frac{1}{x} = \sqrt{5}$$

$$x = \frac{3 + \sqrt{5}}{2}$$

$$5 = (3 + \sqrt{5} - 3)^2$$

$$a + b = 6$$
$$a - b = 2$$

Sum  $\frac{8}{2}$

$\frac{\oplus}{2} - \frac{\ominus}{2}$

$$(2x-3)^2 = 4x^2 - 12x + 9$$

$$x + \frac{1}{x} = 3$$

$$\Rightarrow x^2 + 1 = 3x$$

$$x^2 = 3x - 1$$

$$\cancel{12x} - 4 - \cancel{12x} + 9 = 5$$

coaching center

$$x + \frac{1}{x} = 4$$

$$x - \frac{1}{x} = \sqrt{12}$$

$$x = \frac{4 + \sqrt{12}}{2}$$

$$(4 + \sqrt{12} - 4)^2 = 12$$

246. If  $x^4 + x^{-4} = 194$ , ( $x > 0$ )  
then the value of  $(2x - 4)^2$   
is:

अगर  $x^4 + x^{-4} = 194$ , ( $x > 0$ )  
तो  $(2x - 4)^2$  का मान है:

a) 15

b) 20

~~c) 12~~

d) 16

coaching center



247. If  $x^2 - 9x + 1 = 0$  what is the value  $x^8 - 6239x^4 + 1$ ?

यदि  $x^2 - 9x + 1 = 0$  है, तो  $x^8 - 6239x^4 + 1$  का मान क्या होगा ?

- a) 2      ~~b) 0~~  
c) -1     d) 1

$$x + \frac{1}{x} = 9$$

$$x^2 + \frac{1}{x^2} = 79$$

$$\Rightarrow \left( x^4 + \frac{1}{x^4} = 6241 - 2 = 6239 \right) \times x^4$$

$$x^8 - 6239x^4 + 1 = 0$$

coaching center

248. If  $x^2 - 8x + 1 = 0$ , what is the value of  $x^8 - 3842x^4 + 1$ ?

यदि  $x^2 - 8x + 1 = 0$  है, तो  $x^8 - 3842x^4 + 1$  का मान ज्ञात कीजिए।

a) 1

~~b) 0~~

c) 2

c) -1

$$x + \frac{1}{x} = 8$$

$$x^2 + \frac{1}{x^2} = 62$$

$$\left( x^4 + \frac{1}{x^4} = 3844 - 2 = 3842 \right) \times x^4$$

$$x^8 - 3842x^4 + 1 = 0$$

coaching center

249. If  $\frac{3(x^2+1)-7x}{3x} = 6, x \neq 0$ , then the value of  $\sqrt{x} + \frac{1}{\sqrt{x}}$  is:

यदि  $\frac{3(x^2+1)-7x}{3x} = 6, x \neq 0$  है, तो  $\sqrt{x} + \frac{1}{\sqrt{x}}$  का मान क्या होगा?

$$\begin{aligned} x^2 + \frac{1}{x^2} + 2 &= 49 + 2 \\ \downarrow x^2 \\ \left(x + \frac{1}{x}\right)^2 &= 49 \end{aligned}$$

a)  $\sqrt{\frac{25}{3}}$

b)  $\sqrt{\frac{11}{3}}$

c)  $\sqrt{\frac{35}{3}}$

~~d)  $\sqrt{\frac{31}{3}}$~~

$$x + \frac{1}{x} - \frac{7}{3} = 6$$

$$x + \frac{1}{x} + 2 = 6 + \frac{7}{3} = \frac{25}{3} + 2$$

$$\left(\sqrt{x}\right)^2 + \frac{1}{\left(\sqrt{x}\right)^2} + 2\sqrt{x} \cdot \frac{1}{\sqrt{x}} = \frac{31}{3}$$

$$\left(\sqrt{x} + \frac{1}{\sqrt{x}}\right)^2 = \frac{31}{3}$$

$$\sqrt{x} + \frac{1}{\sqrt{x}} = \sqrt{\frac{31}{3}}$$

$$x = 1 + \sqrt{2}$$

$$\frac{1}{x} = \frac{1}{1 + \sqrt{2}} = \frac{1 - \sqrt{2}}{1 - 2} = \sqrt{2} - 1$$

$$x + \frac{1}{x} = 2\sqrt{2} + 2$$

$$\left(\sqrt{x + \frac{1}{x}}\right)^2 = \sqrt{2 + 2\sqrt{2}}$$

(1.414)

2	4	8	2	8	0
4	1	8	2	4	1
4	2	4	2	8	0

250. If  $x = 1 + \sqrt{2}$ , then find the value of  $\sqrt{x} + \frac{1}{\sqrt{x}}$ .

यदि  $x = 1 + \sqrt{2}$ , तो  $\sqrt{x} + \frac{1}{\sqrt{x}}$  का मान ज्ञात कीजिए।

a) 2.1014

b) 2.1973

~~c) 1.9876~~

~~d) 1.9996~~

2	8	2	8
+2			
4	8	2	8

$$\sqrt{2} = 1.414$$

$$\sqrt{3} = 1.732$$

$$\sqrt{5} = 2.236$$

coaching center

$$x + \frac{1}{x} = 47 \quad +2$$

$$\sqrt{x} + \frac{1}{\sqrt{x}} = 7 \quad +2$$

$$x^{\frac{1}{4}} + \frac{1}{x^{\frac{1}{4}}} = 3$$

*coaching center*

251. If  $x^2 - 4x + 1 = 0$ , then what is the value of  $x^9 + x^7 - 194x^5 - 194x^3$ ?  
 यदि  $x^2 - 4x + 1 = 0$  है, तो  $x^9 + x^7 - 194x^5 - 194x^3$  का मान क्या है?

a) 4

~~b) -4~~

$$x + \frac{1}{x} = 4$$

$$x^2 + \frac{1}{x^2} = 14$$

$$x^4 + \frac{1}{x^4} = 194$$

$$x^4 - 194 = -\frac{1}{x^4}$$

c) 1

~~d) 1~~

$$x^5(x^4 - 194) + x^3(x^4 - 194)$$

$$= x^5 x - \frac{1}{x^4} + x^3 x - \frac{1}{x^4}$$

$$= -x - \frac{1}{x}$$

$$= -\left(x + \frac{1}{x}\right) = -4$$

252. If  $p + \frac{1}{p} = 112$  find  $(p - 112)^{15} + \frac{1}{p^{15}}$ .

यदि  $p + \frac{1}{p} = 112$  है,  $(p - 112)^{15} + \frac{1}{p^{15}}$  तो ज्ञात करो ।

a) 10

b) 0

c) 15

d) 1

$$\begin{aligned} p - 112 &= -\frac{1}{p} & \left(\frac{-1}{p}\right)^{15} + \frac{1}{p^{15}} \\ & & = -\frac{1}{p^{15}} + \frac{1}{p^{15}} = 0 \end{aligned}$$

*coaching center*

253. If  $x + \frac{2}{x} = 1$ , then  $\frac{x^2+x+2}{x^2(1-x)} = ?$

अगर  $x + \frac{2}{x} = 1$  है तो  $\frac{(x^2+x+2)/x}{(x^2(1-x))/x} = ?$

a) 1

b) -1

c) 2

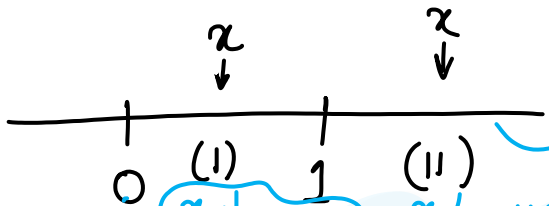
d) -2

$$\frac{2}{x} = 1 - x$$

$$1 = \frac{2}{x \cdot \frac{2}{x}} = \frac{\left(x + \frac{2}{x}\right) + 1}{x(1-x)}$$

coaching center





(ii)  $x = 2, 3, 4$   
 $\frac{1}{x} = \frac{1}{2}, \frac{1}{3}, \frac{1}{4}$

$x > \frac{1}{x}$

$x - \frac{1}{x} = +ve$      $x + \frac{1}{x} = +ve$

(i)  $0 < x < 1$      $x + \frac{1}{x} = +ve$      $x + \frac{1}{x} = +ve$

$x = \frac{1}{2}, \frac{2}{3}, \frac{3}{4}, \frac{1}{3}, \frac{1}{4}$

$\frac{1}{x} = 2, \frac{3}{2}, \frac{4}{3}, 3, 4$

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

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

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

-ve

$$x^2 - \frac{1}{x^2} = -21\sqrt{5}$$

$$\begin{cases} x + \frac{1}{x} = 7 \\ x - \frac{1}{x} = -\sqrt{45} = -3\sqrt{5} \end{cases}$$

254. If  $x^2 - 7x + 1 = 0$ , and  $0 < x < 1$ , what is the value of  $x^2 - \frac{1}{x^2}$ ?

यदि  $x^2 - 7x + 1 = 0$ , और  $0 < x < 1$ , है, तो  $x^2 - \frac{1}{x^2}$  का मान क्या होगा?

a)  $21\sqrt{5}$

~~b)  $-21\sqrt{5}$~~

c)  $28\sqrt{5}$

d)  $-28\sqrt{5}$

coaching center

255. If  $(x^2 + \frac{1}{x^2}) = 7$ , and  $0 < x < 1$ , find the value of  $x^2 - \frac{1}{x^2}$ .  $x^n - \frac{1}{x^n} = -ve$

यदि  $(x^2 + \frac{1}{x^2}) = 7$  और  $0 < x < 1$  है, तो  $x^2 - \frac{1}{x^2}$  का मान ज्ञात करें।

a)  $3\sqrt{5}$

b)  $4\sqrt{3}$

c)  $-4\sqrt{3}$

~~d)  $-3\sqrt{5}$~~

$$-\sqrt{7^2 - 4} = -\sqrt{45}$$
$$= -3\sqrt{5}$$

coaching center

256. If  $\left(x^2 + \frac{1}{x^2}\right) = 6$ , and  $0 < x < 1$ ,  
what is the value of  $x^4 - \frac{1}{x^4}$ ?

यदि  $\left(x^2 + \frac{1}{x^2}\right) = 6$  और  $0 < x < 1$ ,  
है, तो  $x^4 - \frac{1}{x^4}$  का मान क्या  
होगा?

$$\left(x^2 + \frac{1}{x^2}\right) \left(x^2 - \frac{1}{x^2}\right) = 6 \times -4\sqrt{2}$$

- a)  $24\sqrt{2}$   
c)  $-12\sqrt{10}$

- ~~b)  $-24\sqrt{2}$~~   
d)  $12\sqrt{10}$

$$x^2 - \frac{1}{x^2} = \sqrt{36 - 4} = -4\sqrt{2}$$

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