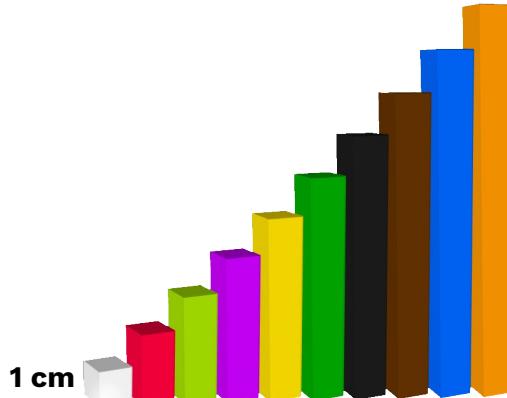


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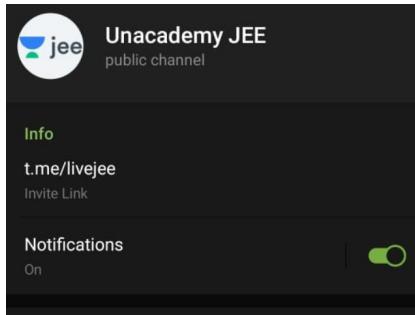
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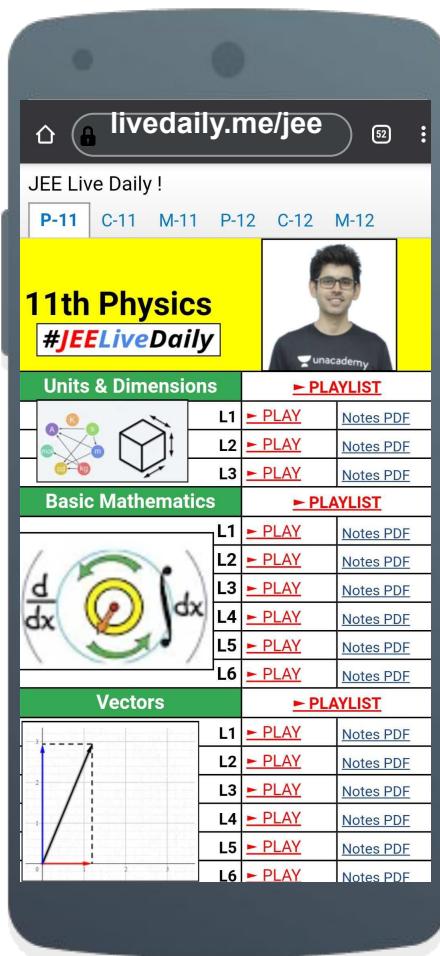
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A shell is fired from a point O at an angle of 60 degrees with a speed of 40 m/s & it strikes a horizontal plane through O at a point A. The gun is fired a second time with the same angle of elevation but a different speed v if it strikes the same point A, then the value of v is
 $9\sqrt{3}$ m/s. At the same instant, on the shell is fired, find v.
 (Take g = 10 m/s²)

Self Inductance

As 'I' changes, 'Φ' changes and emf is induced
 this emf is called **'Self-induced emf'**
 as emf is induced because of ' Φ of loop itself.'

Corresponding induced emf

$$\epsilon = -L \frac{di}{dt}$$

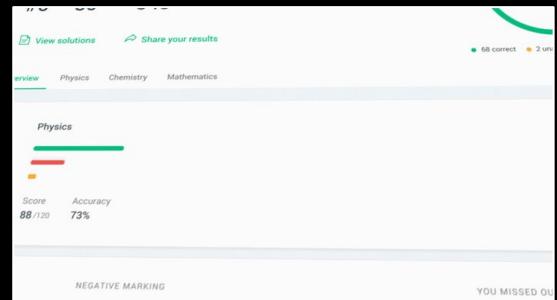
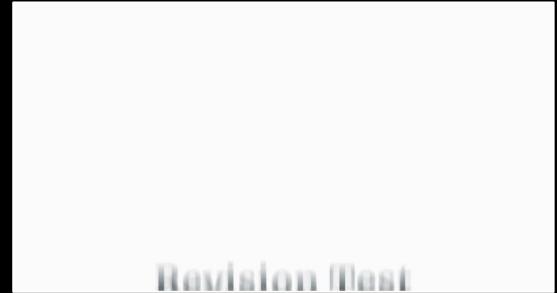
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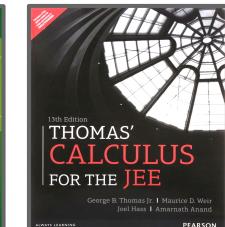
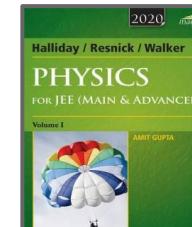
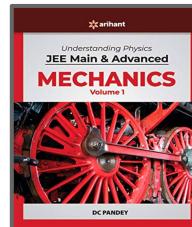
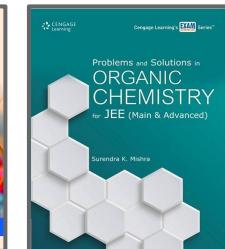
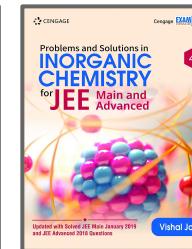
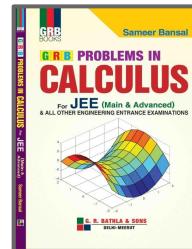
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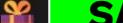
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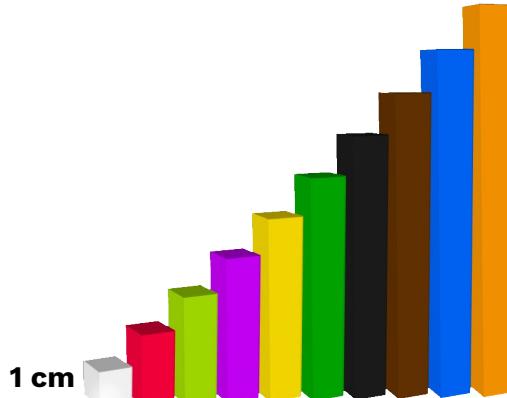
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If **a, b, c** are in A.P., **p, q, r** are in H.P. and **ap, bq, cr** are in G.P., then

A. $\frac{p}{r} + \frac{r}{p} = \frac{c}{a} + \frac{a}{c}$

B. $\frac{p}{q} + \frac{q}{p} = \frac{c}{a} + \frac{a}{c}$

C. $\frac{p}{r} + \frac{r}{p} = \frac{b}{c} + \frac{c}{b}$

D. None of these



If $a_1, a_2, a_3, \dots, a_n$ are in H.P., then $\frac{a_1}{a_2 + a_3 + \dots + a_n},$

$\frac{a_2}{a_1 + a_3 + \dots + a_n}, \dots, \frac{a_n}{a_1 + a_2 + \dots + a_{n-1}}$ are in

- A. A.P.
- B. G.P.
- C. H.P.
- D. None of these



If the **7th term** of an H.P. is $\frac{1}{10}$, and the **12th term** is $\frac{1}{25}$, then the **20th term** is

- A. 1/37 B. 1/41 C. 1/45 D. 1/49



If $b + c$, $c + a$, $a + b$ are in H.P., then a^2 , b^2 , c^2 will be in

- A. G.P.
- B. H.P.
- C. A.P.
- D. None of these



If a_1, a_2, \dots, a_n be in harmonic progression then the expression

$a_1a_2 + a_2a_3 + \dots + a_{n-1}a_n$ is equal to

2006 M

A. $n(a_1 - a_n)$

B. $(n - 1)(a_1 - a_n)$

C. na_1a_n

D. $(n - 1)a_1a_n$



Let a_1, a_2, \dots, a_n be in harmonic progression with $a_1 = 5$ and $a_{20} = 25$.

The least positive integer n for which $a_n < 0$ is

A. 22

B. 23

C. 24

D. 25

2012 ADV.



If **a, b, c** are distinct positive numbers in **H.P.** then if

$$a^n + c^n > (k)b^n$$

Then value of **k** is

A. 2

B. 3

C. 4

D. 9



For $x^2 - (p + 3)|x| + 4 = 0$ to have real solutions, the range of p is

- A. $(-\infty, -7] \cup [1, \infty)$
- B. $(-3, \infty)$
- C. $(-\infty, -7]$
- D. $[1, \infty)$



If a, b, c are the sides of a triangle, then the **minimum value** of

$$\frac{a}{b+c-a} + \frac{b}{c+a-b} + \frac{c}{a+b-c} \text{ is equal to}$$

- A. 3 B. 6 C. 9 D. 12



$f(x) = \frac{(x-2)(x-1)}{(x-3)}$, $\forall x > 3$. The minimum value of $f(x)$ is equal to

- A. $3 + 2\sqrt{2}$ B. $3 + 2\sqrt{2}$ C. $3\sqrt{2} + 2$ D. $3\sqrt{2} - 2$



Sum of 16 terms

$$\frac{1^3}{1} + \frac{1^3 + 2^3}{1+3} + \frac{1^3 + 2^3 + 3^3}{1+3+5} + \dots \text{ is}$$

A. 442

B. 446

C. 440

D. 448



#JEELiveDaily Schedule



11th



Namo Sir | Physics

6:00 - 7:30 PM



Ashwani Sir | Chemistry

7:30 - 9:00 PM



Sameer Sir | Maths

9:00 - 10:30 PM

12th



Jayant Sir | Physics

1:30 - 3:00 PM



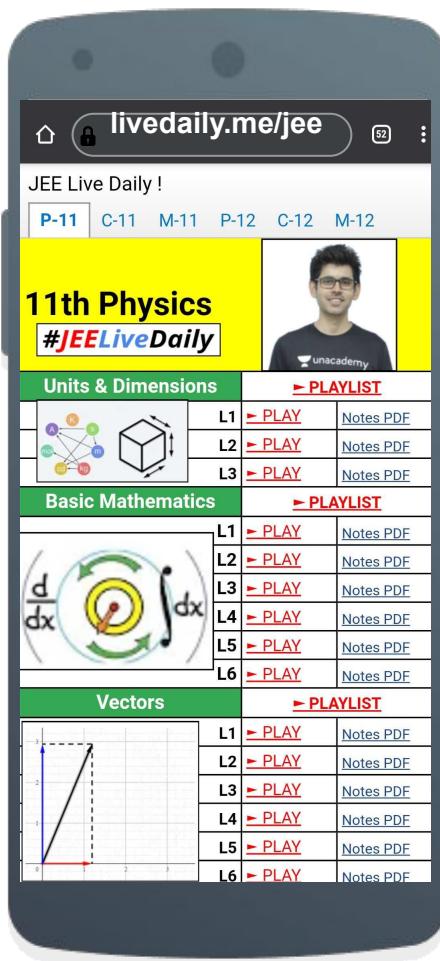
Anupam Sir | Chemistry

3:00 - 4:30 PM



Nishant Sir | Maths

4:30 - 6:00 PM



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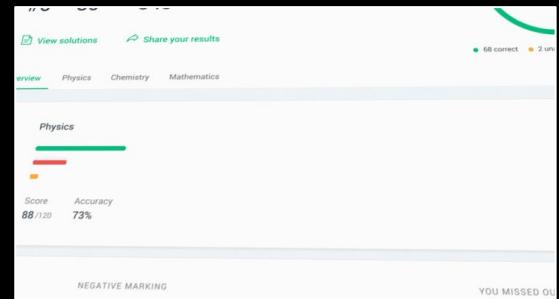
The first screenshot shows a live class interface with a teacher video feed, student names (Brijesh, Sagar, Sonwab), and a question about projectile motion.

The second screenshot shows a physics exercise titled "Self Inductance". It includes a diagram of a circular loop with current I , text explaining self-induced emf, and the formula $e = -L \frac{di}{dt}$.

The third screenshot shows a handwritten note with a diagram of a rectangle and the text "Prest" and "Pmax = 4".

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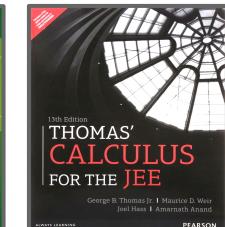
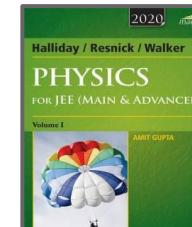
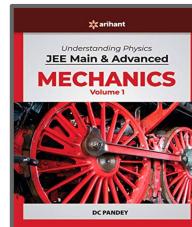
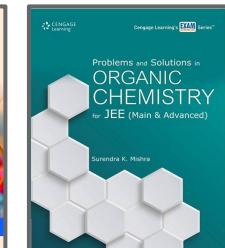
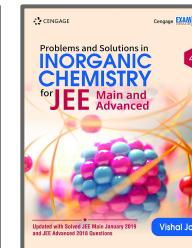
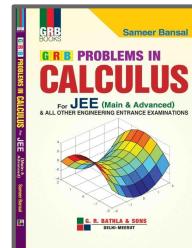
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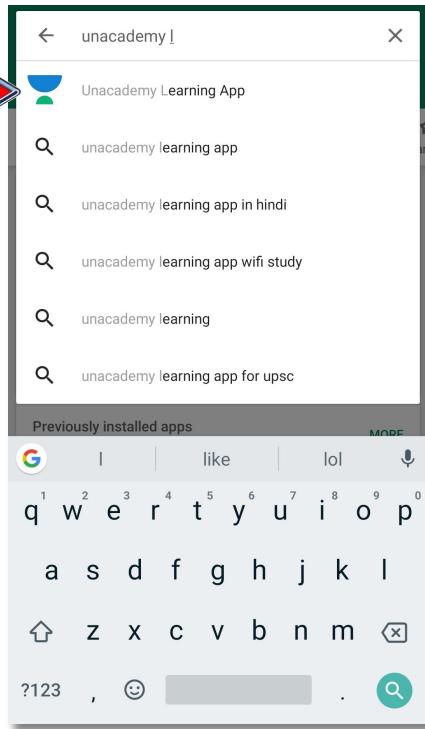


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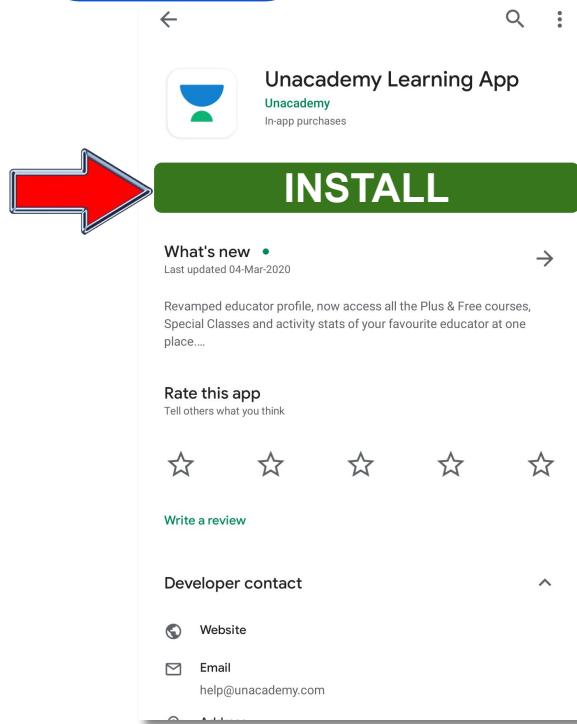


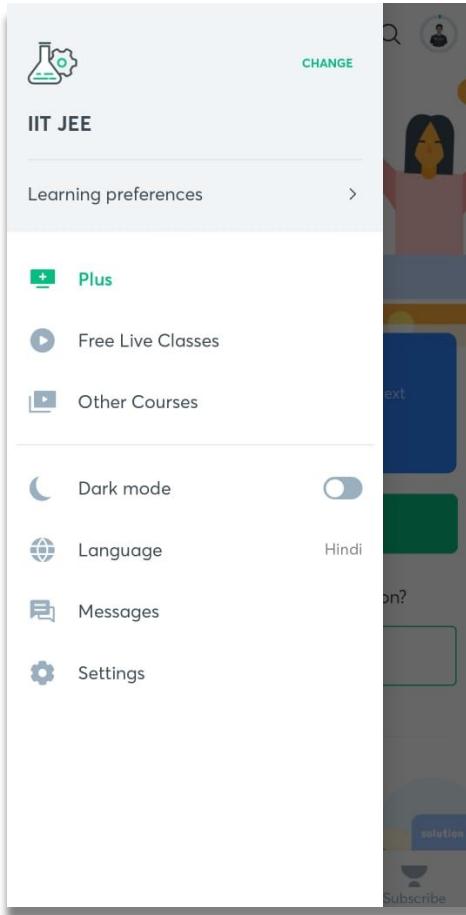
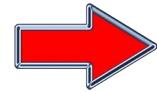
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