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Sahi Prep Hai Toh Life Set Hai

Unit Digit


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Toh Life Set Hai
Digit
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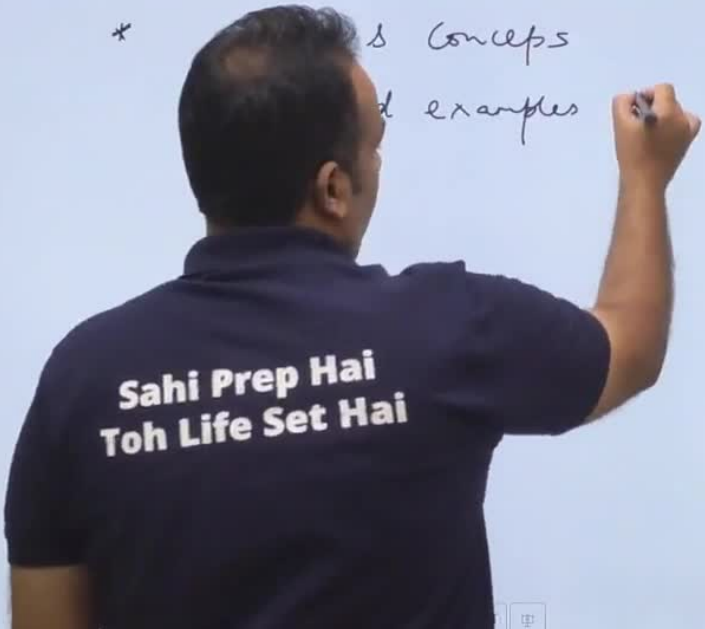
Agenda

* s Concepts

d examples



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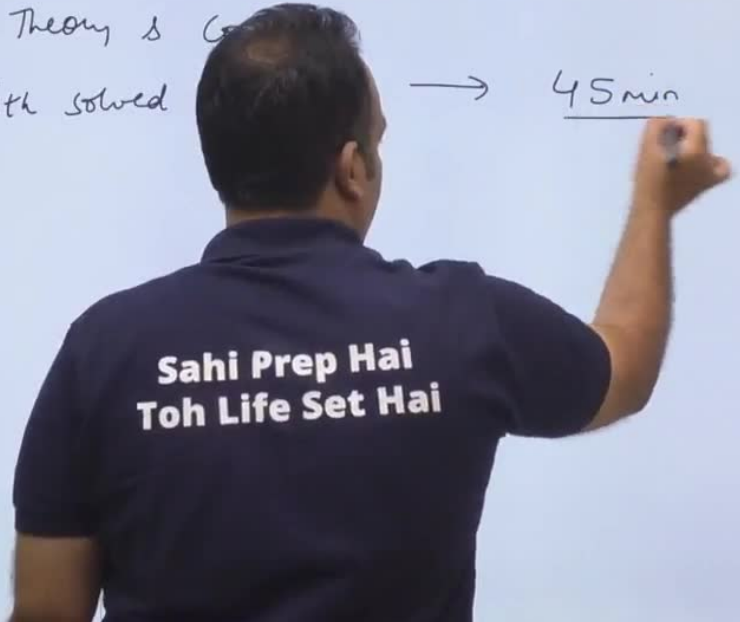
Agenda

* Theory & C
  With solved → 45min



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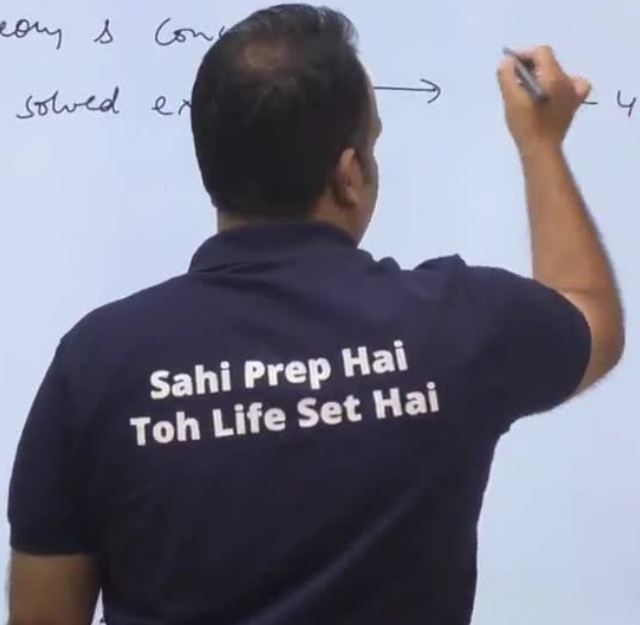
Agenda

* Theory is Con
  With solved ex → - 47)



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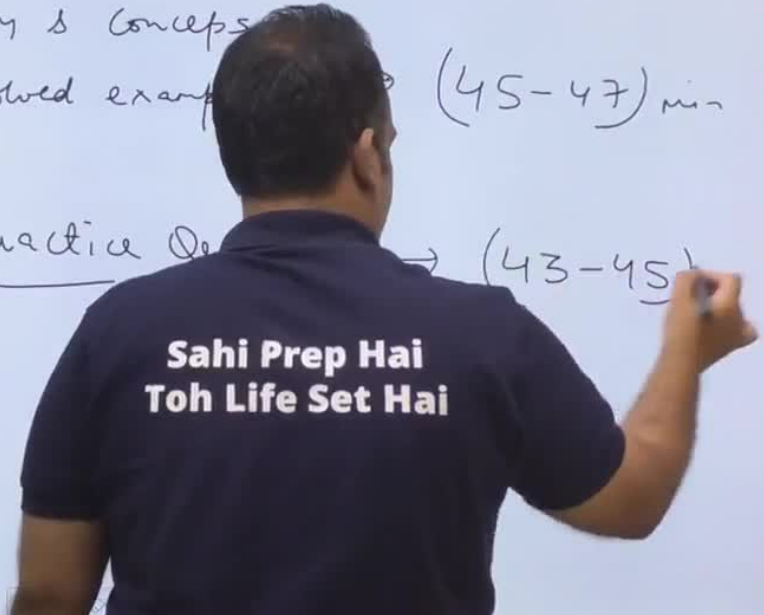
Agenda

* Theory & Concepts
With solved exam → (45-47) min

Practice Q → (43-45)



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Agenda

* ...y & Concepts
...wed examples → (45-47) min
(10 examples)
...ractice Questions → (43-45) min
(15Q)

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Meaning of Unit digit

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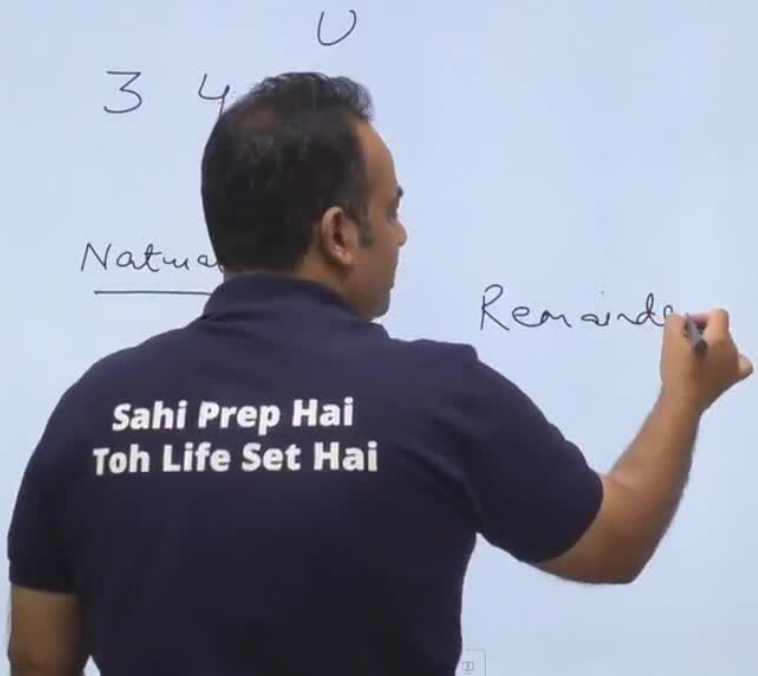
Meaning of Unit digit



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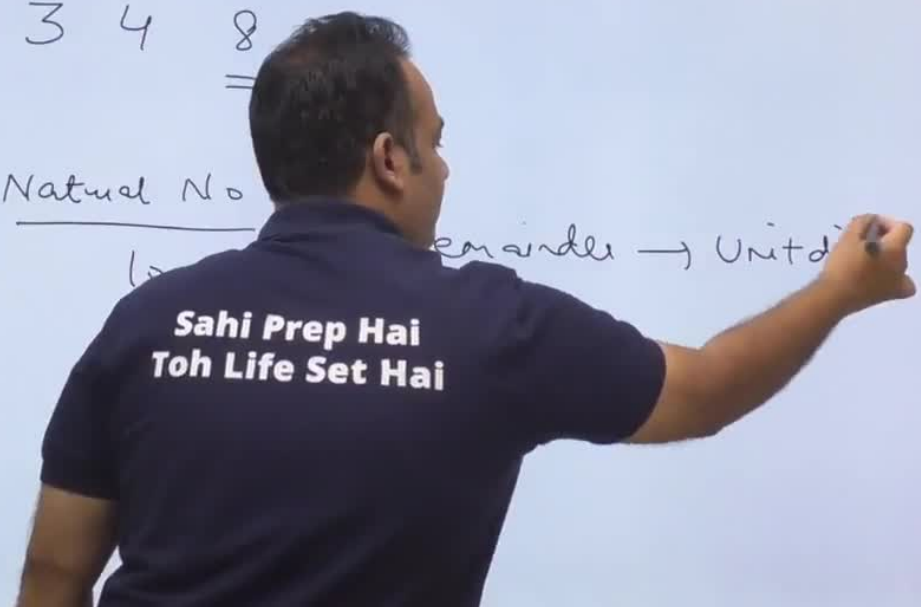
Meaning of Unit digit

U

3 4 8

Natural No

→ Unit d



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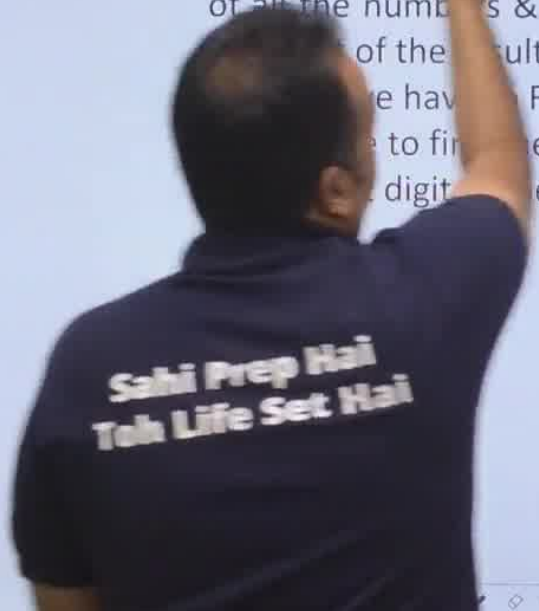
How to find the unit digit of a given expression?

To find the u digit of a given expression, we don't have to evaluate the c lete expression, only evaluate the unit digits of all the numb s & perform the required operation to get the of the ultant expression.

e hav Find the unit digit of **12 × 13 × 14**.

to fi e unit digit we multiply **2 × 3 × 4 = 24**

digit e expression is **4**.



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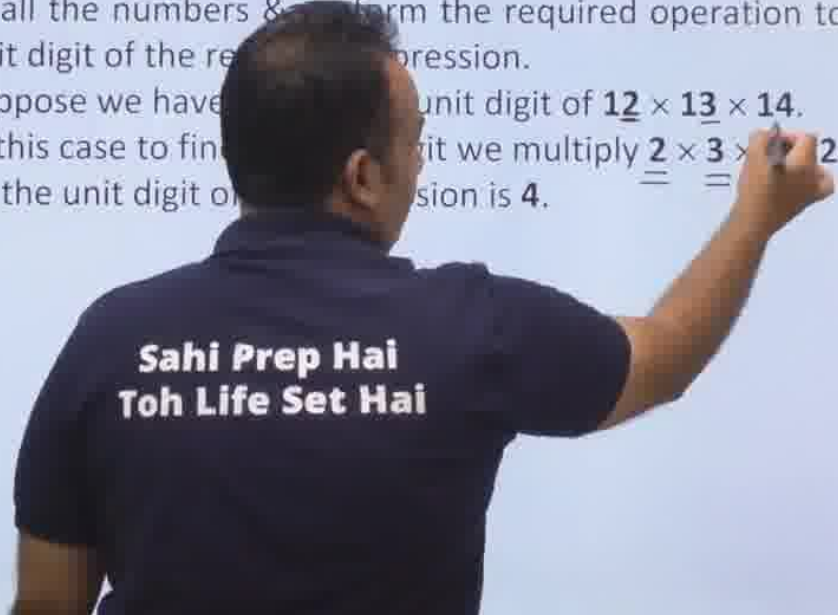
How to find the unit digit of a given expression?

To find the unit digit of a given expression, we don't have to evaluate the complete expression, only evaluate the unit digits of all the numbers & perform the required operation to get the unit digit of the re pression.

Suppose we have unit digit of $12 \times 13 \times 14$.

In this case to fin it we multiply $2 \times 3 \times$ 24

So the unit digit o sion is **4**.



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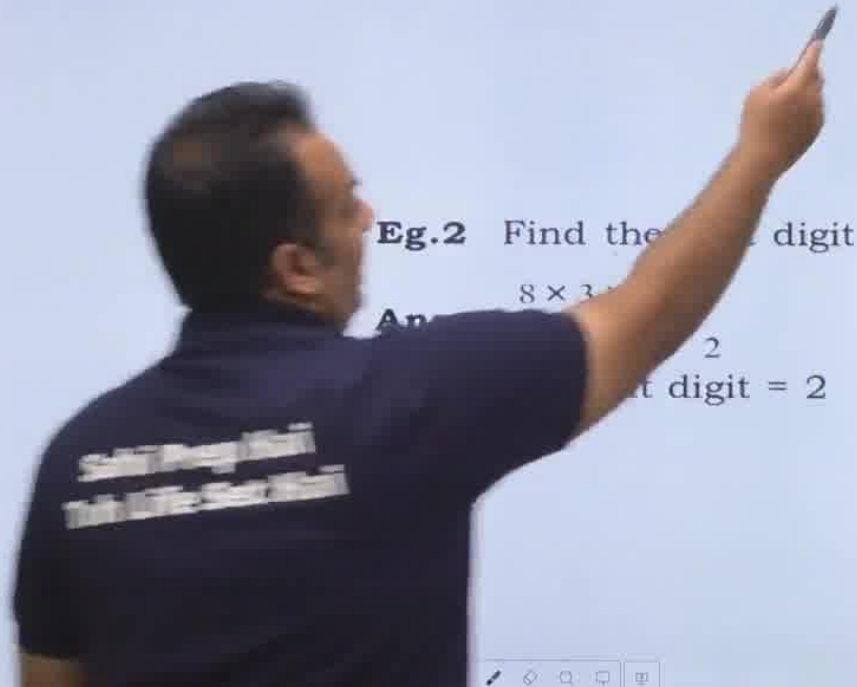
Eg.1 Find unit digit of $628 + 493 + 589$

Ans. $8 + 3 + 9 = 20 \longrightarrow 0$



Eg.2 Find the ... digit of $128 \times 693 \times 584 \times 677$

An... 8×3

2

...t digit = 2

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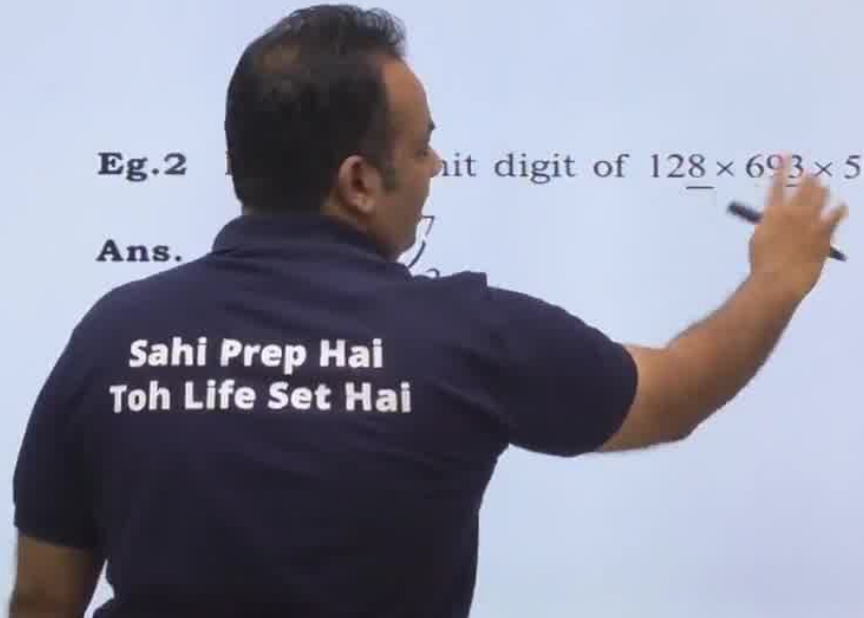
Eg.1 Find unit digit of $628 + 493 + 589$

Ans. $8 + 3 + 9 = 20 \longrightarrow 0$

Eg.2 [illegible]nit digit of $128 \times 693 \times 584 \times 677$

Ans.



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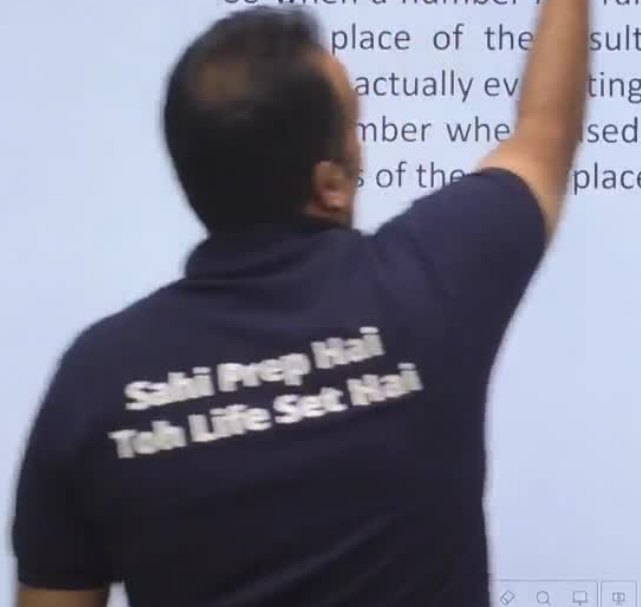
Concept of Cyclicity

This concept is use[illegible] find the unit digit of a bigger expressions where ex[illegible]nents are involved.

So when a number *n* raised to any power *m*, the digit in the [illegible] place of the [illegible]sulting expression can be determined [illegible]actually ev[illegible]ting the complete expression.

[illegible]mber whe[illegible]sed to powers will give values in which [illegible]s of the [illegible]place follow's a cyclic pattern.



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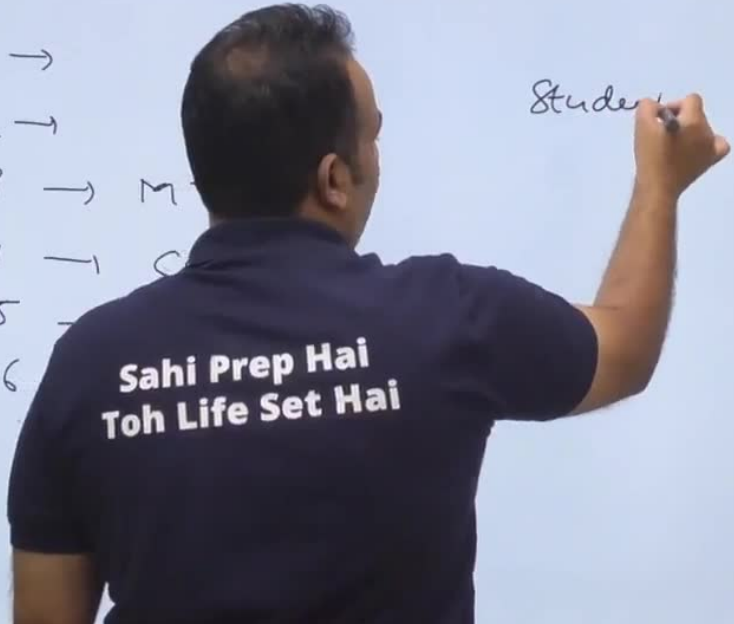
Cyclicity → "Pattern"

1 →
2 →
3 → M
4 → C
5 →
6

Stude



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Cyclicity → "Pattern"

1 → CGL

→ CHSL

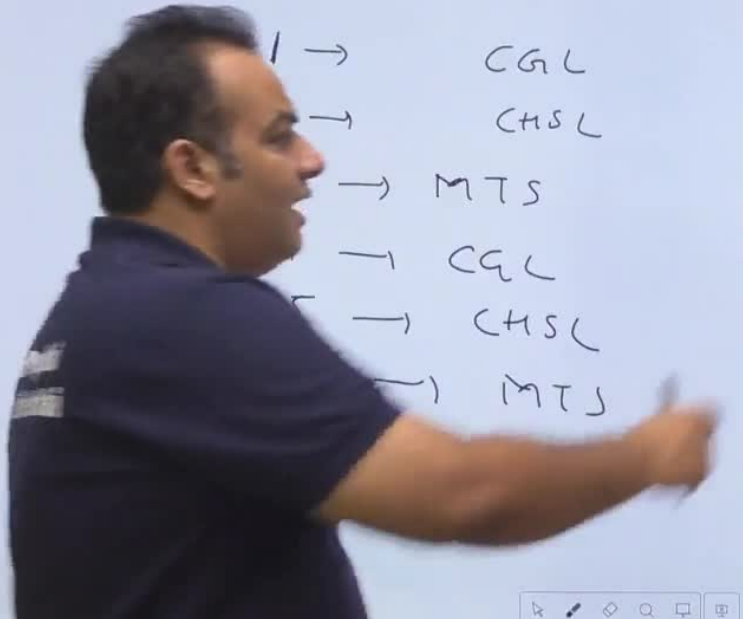
→ MTS

→ CGL

→ CHSL

→ MTS

Student No → 50



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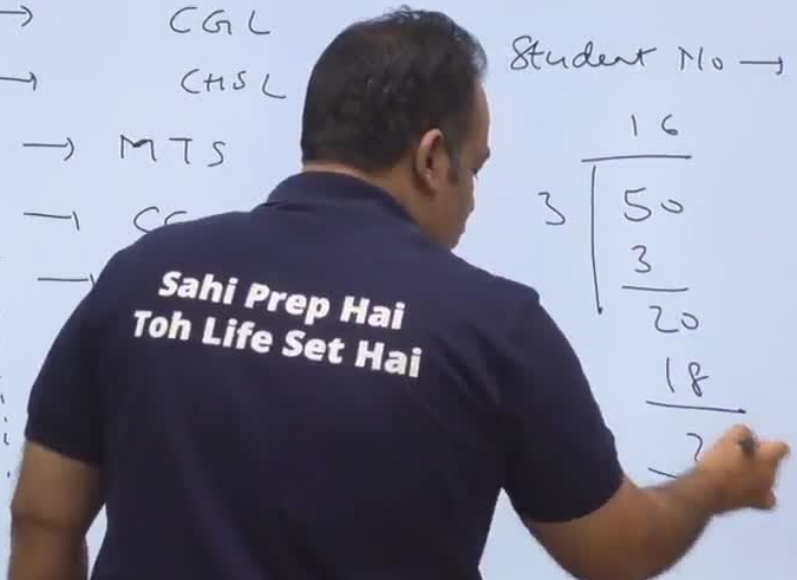
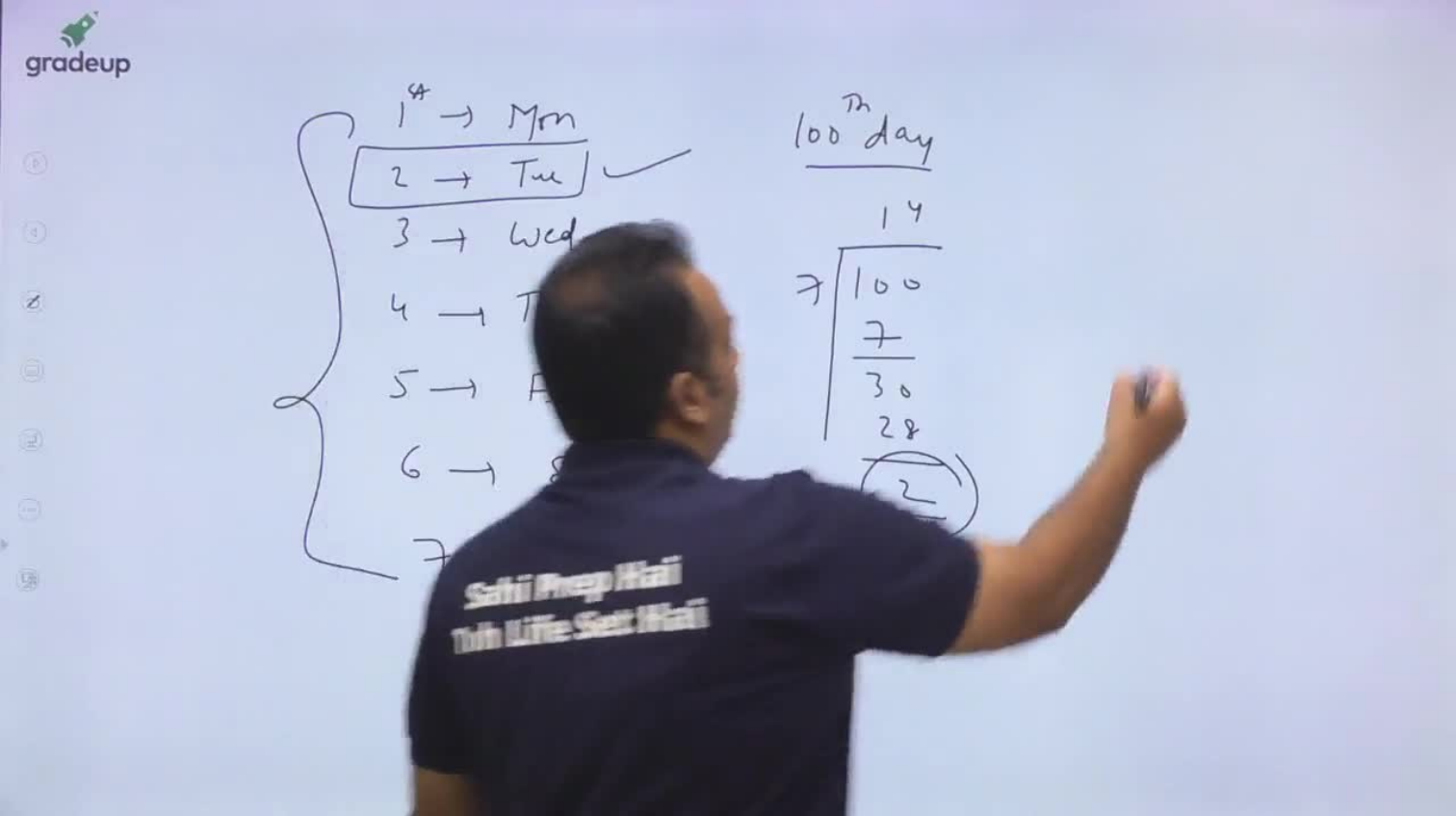
Cyclicity → "Pattern"

1 → CGL
2 → CHSL
3 → MTS
4 → CC
5 →
6

Student No → 50

16
3 | 50
3
20
18
2

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1st → Mon
2 → Tue
3 → Wed
4 →
5 →
6 →
100th day
14
7 | 100
7
30
28
2
Sahi Prep Hai
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1st → Mon

2 → Tue

3 → Wed

4 → Thu

5 → Fri

6 → Sat

7 → Sun

100th day

$7 \overline{)100}$ → 14, 7, 30, 28, 2

35th day

$7 \overline{)35}$ → 5, 35, 35, 0

Prep Hai
e Set Hai

gradeup

1st → Mon

2 → Tue

3 → Wed

4 → Thu

5 → Fri

6 → Sat

7 → Sun

100th day

14

35th day

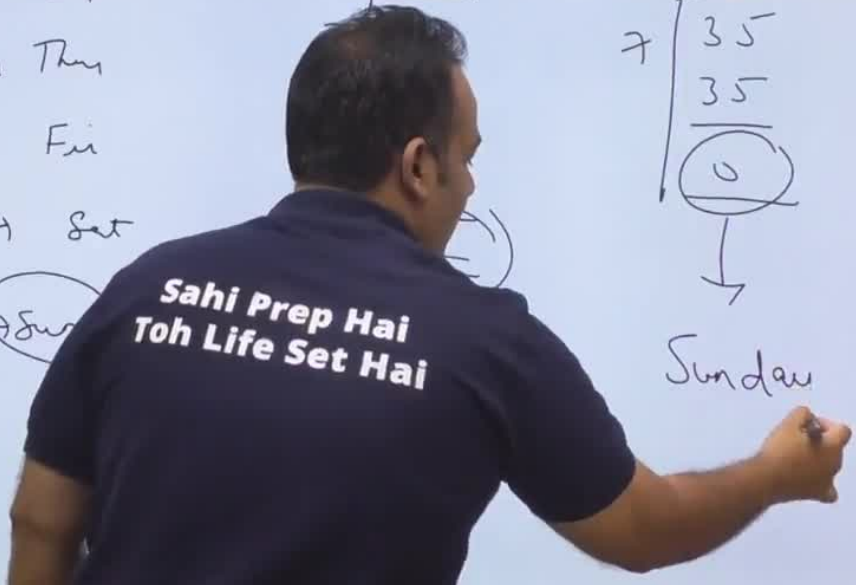
5

7 | 35

35

0

Sunday



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How to use cyclicity to Evaluate Unit digit

Powers of 2

$2^1 = 2$

$2^2 = 4$

Unit digit repeats after a cycle of 4

So cyclicity of unit digit of 2 is 4.

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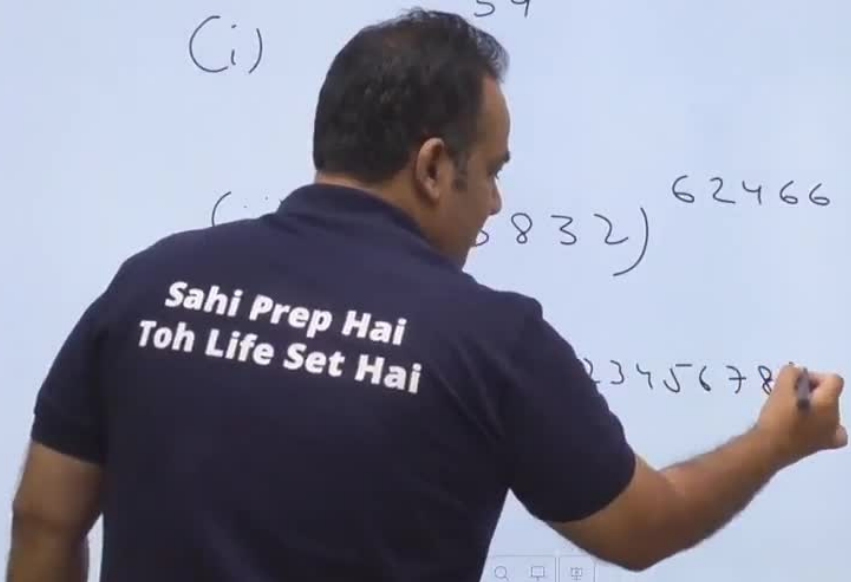
Find unit digit of

(i) 59

$(\ldots 3832)^{62466}$

$\ldots 2345678$



Find unit digit of

(i) [illegible] → 8

(ii) [illegible]832 62466 → 4

[illegible]787654321

Find unit digit of

(i) $2^{59} \rightarrow$ (8) ✓

(ii) ... $2^{62466} \rightarrow 4$

... 5678765432 1

... 2

gradeup

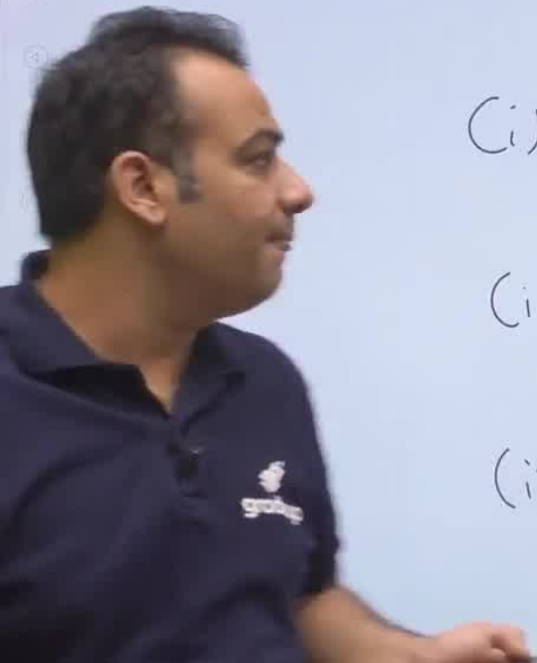
Find unit digit of

(i) 2^{59} → 8 ✓

(ii) $(15832)^{62466}$ → 4

(iii) $(2)^{1234567876543211}$

→ 2



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Eg4. Find the unit digit of 2^{33}.

Ans. To find the unit digit of 2^{33} divide the power 33 by 4 (because cyclicity of unit digit of 2 is 4) & find the remainder. Based on the value of the remainder, you can find the unit digit

In case of powers of 2, if

Remainder = 1 $\longrightarrow$ Unit digit = 2

Remainder = 2 $\longrightarrow$ Unit digit = 4

Remainder = 3 $\longrightarrow$ Unit digit = 8

Remainder = 0 $\longrightarrow$ Unit digit = 6

$\frac{33}{4}$ Remainder is 1, so unit digit = 2

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Powers of 3

$3^1 = \underline{3}$
$3^2 = \underline{9}$
$3^3 = 2\underline{7}$
$3^4 = 8\underline{1}$
$3^5 = 3$
$3^6 = 9$
$3^7 = 7$
$3^8 = 1$

Unit digit repeats after a cycle of 4
So cyclicity of unit digit of 3 is 4.

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Eg5. Find the unit digit of 3^{142}.

Ans. To find the unit digit of 3^{142} divide the power 142 by 4 (because cyclicity of unit digit of 3 is 4) & find the remainder based on the value of the remainder, you can find the unit digit.

In case of powers of 3

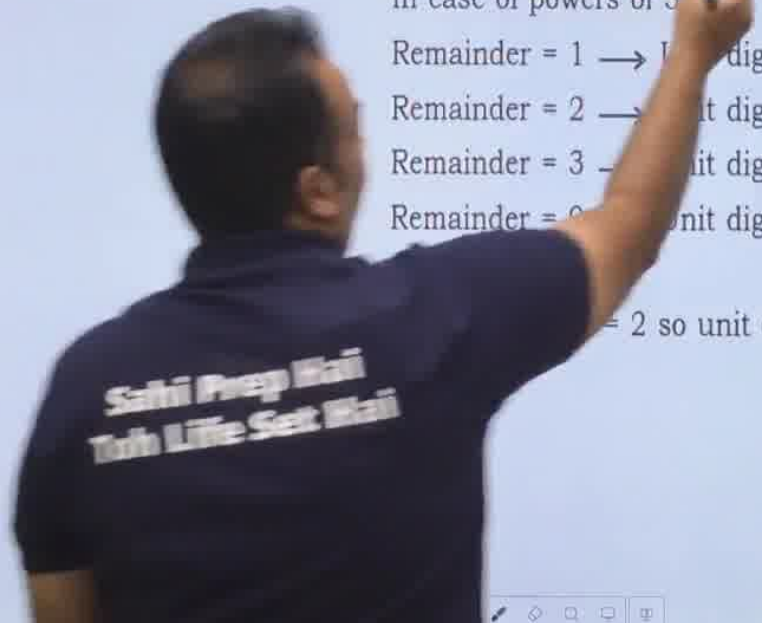
Remainder = 1 ⟶ digit = 3

Remainder = 2 ⟶ t digit = 9

Remainder = 3 ⟶ it digit = 7

Remainder = 0 ⟶ nit digit = 1

= 2 so unit digit = 9



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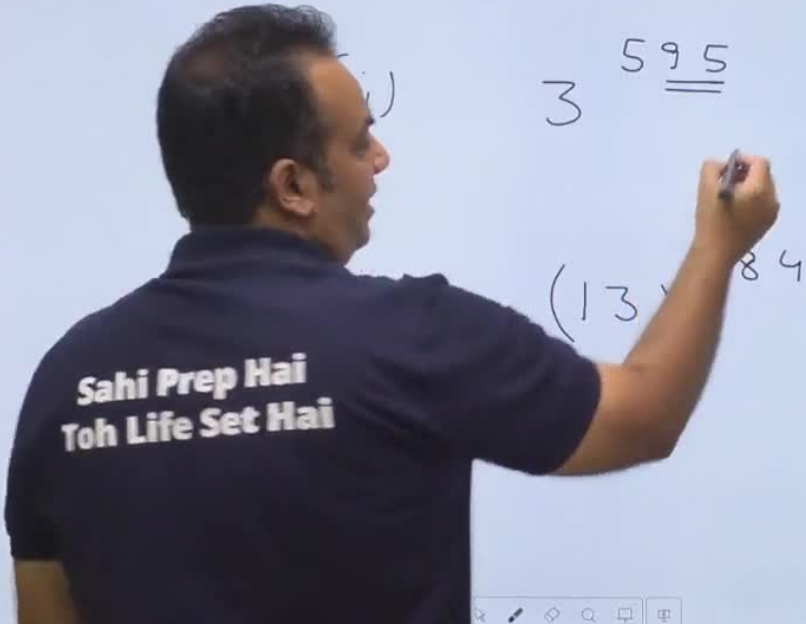
Find unit digit of

3^{595}

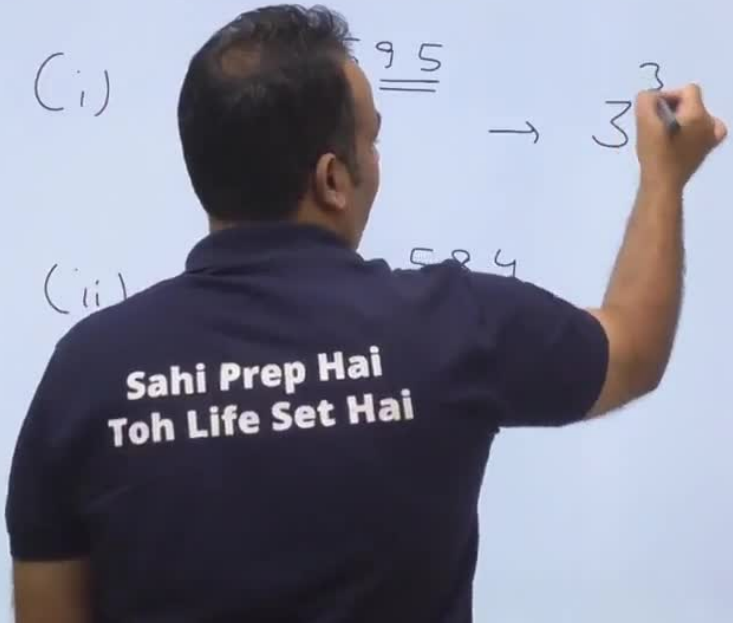
$(13)^{84}$



Find unit digit of

(i) $\quad 95$ $\rightarrow$ 3^{3}

(ii) $\quad 584$



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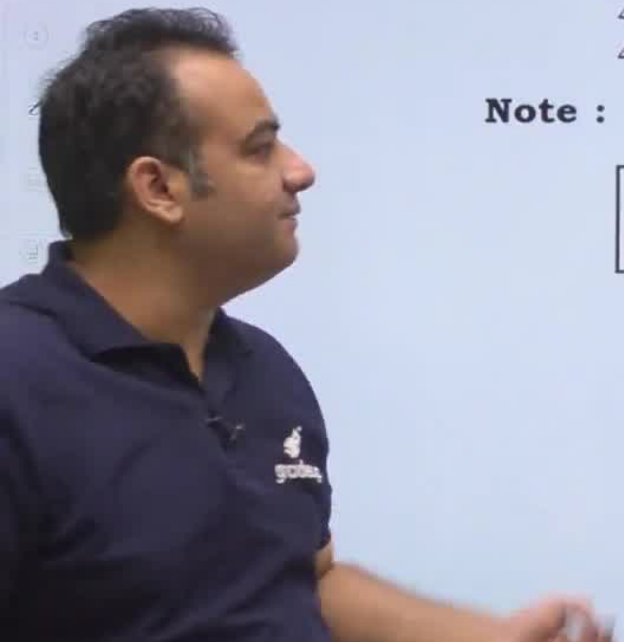
Powers of 4

$4^1 = 4$
$4^2 = 16$
$4^3 = 64$

Unit digit repeats after a cycle of 4
So cyclicity of unit digit of 4 is 2.

Note :

$4^{\text{Odd}} \longrightarrow 4$
$4^{\text{Even}} \longrightarrow 6$



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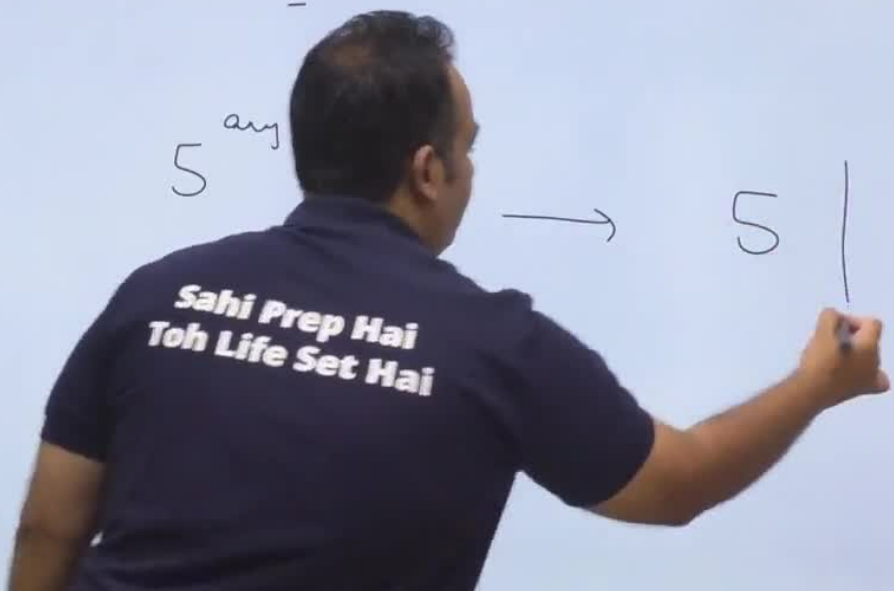
Powers of 5

$5^1 = 5$

$5^2 = 25$

Unit digit is same for all the powers of 5
So cyclicity of unit digit of 5 is 1.



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Eg7. Find the unit digit of 7^{1248}

Ans. To find the unit digit of 7^{1248}. Divide the power 1248 by 4 (because cyclicity of the un
digit of 7 is 4) and find the remainder. Based on the value of the remainder, you can find th
unit digit.

In case of powers of 7 if,

Remainder = 1 $\longrightarrow$ Unit digit = 7

Remainder = 2 $\longrightarrow$ Unit digit = 9

Remainder = 3 $\longrightarrow$ Unit digit = 3

Remainder = 0 $\longrightarrow$ Unit digit = 1

So, $\frac{1248}{4}$ Remainder = 0, so unit digit = 1

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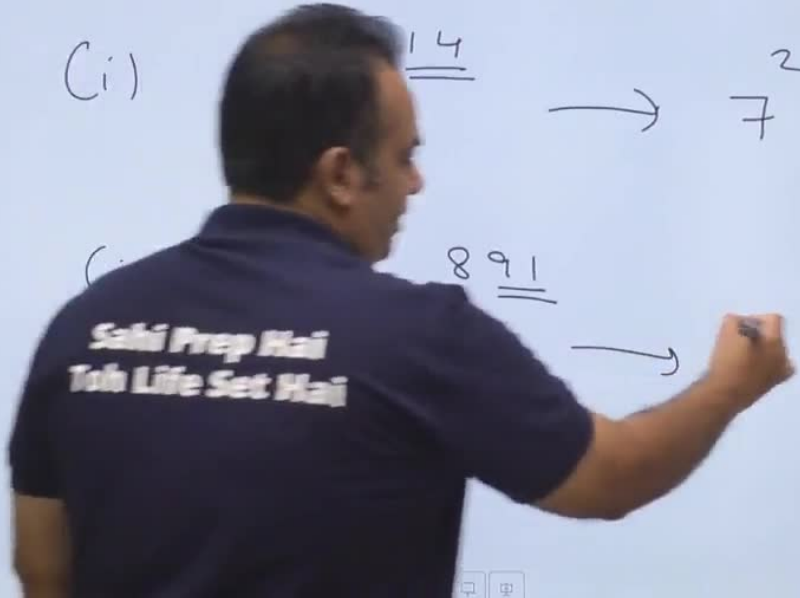
Find unit digit of

(i) 7^{14} $\rightarrow$ 7^{2} $\rightarrow$ 9

(8^{91} $\rightarrow$



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Eg8. Find the unit digit of 8^{343}

To find the unit digit of 8^{343} divide the power of 343 by 4 (because cyclicity of the unit digit of 8 is 4) & find the remainder. Based on the value of the remainder, you can find the unit digit.

In case of powers of 8 if

Remainder = 1 $\longrightarrow$ Unit digit = 8

Remainder = 2 $\longrightarrow$ Unit digit = 4

Remainder = 3 $\longrightarrow$ Unit digit = 2

Remainder = 4 $\longrightarrow$ Unit digit = 6

So, $\frac{343}{4}$ Remainder = 3, so unit digit = 2

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Eg9. Find the unit digit of 9^{64}.

Ans. To find the unit digit of 9^{64}, divide the power 64 by 2 (because cyclicity of unit digit of 9 is 2) & find the remainder based on the value of the remainder, you can find the unit digit.

In case of powers of 9 if,

Remainder = 1 $\longrightarrow$ Unit digit = 9

Remainder = 0 $\longrightarrow$ Unit digit = 1

$\frac{64}{2}$ Remainder is 0. So unit digit = 1

Note : $9^{Odd} \rightarrow 9$

$9^{Even} \rightarrow 1$

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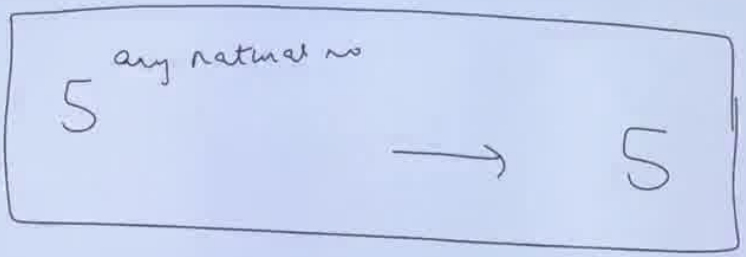
Powers of 5

$5^1 = 5$ ⌐

$5^2 = 25$

Unit digit is same for all the powers of 5
So cyclicity of unit digit of 5 is 1.



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Eg4. Find the unit digit of 2^{33}.

Ans. To find the unit digit of 2^{33} divide the power 33 by 4 (because cyclicity of unit digit of 2 is 4) & find the remainder. Based on the value of the remainder, you can find the unit digit

In case of powers of 2, if

Remainder = 1 $\longrightarrow$ Unit digit = 2

Remainder = 2 $\longrightarrow$ Unit digit = 4

Remainder = 3 $\longrightarrow$ Unit digit = 8

Remainder = 0 $\longrightarrow$ Unit digit = 6

$\frac{33}{4}$ Remainder is 1, so unit digit = 2

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Powers of 3

$3^1 = \underline{3}$
$3^2 = \underline{9}$
$3^3 = 2\underline{7}$
$3^4 = 8\underline{1}$
$3^5 = 3$
$3^6 = 9$
$3^7 = 7$
$3^8 = 1$

Unit digit repeats after a cycle of 4
So cyclicity of unit digit of 3 is 4.

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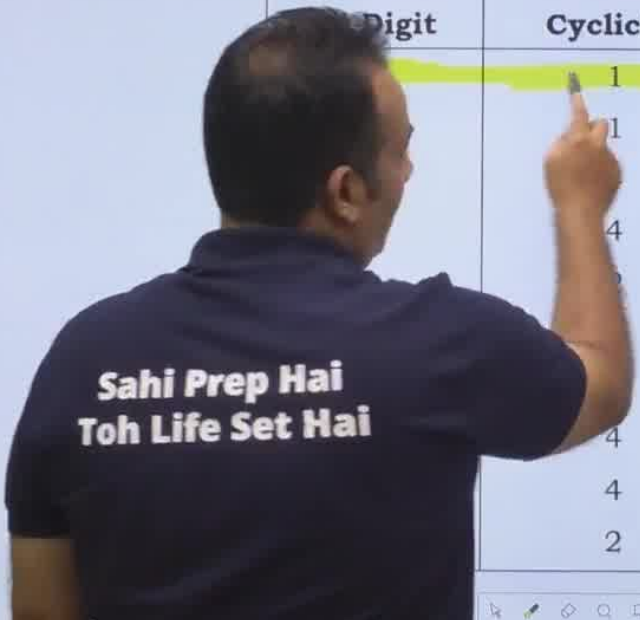
Summary

CYCLICITY TABLE		
Digit	Cyclicity	Cyclic Pattern of Unit digit
	1	0
	1	1
		2, 4, 8, 6
	4	3, 9, 7, 1
		4, 6
		5
		6
	4	7, 9, 3, 1
	4	8, 4, 2, 6
	2	9, 1



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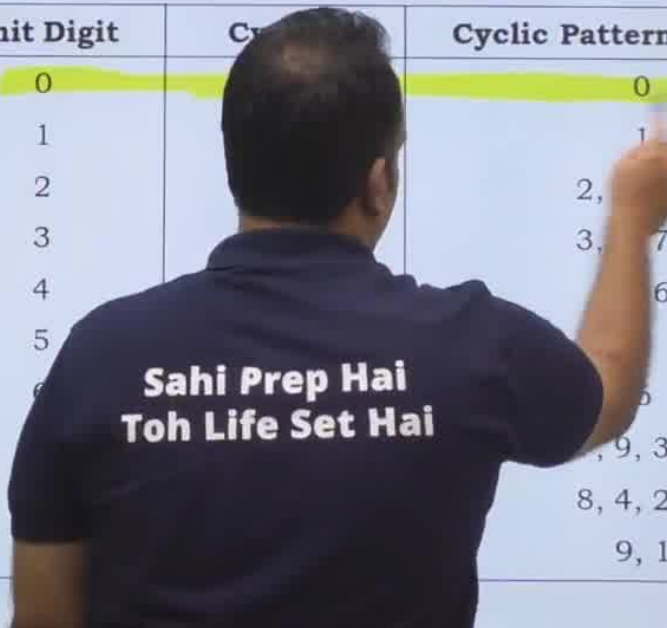
Summary

CYCLICITY TABLE		
Unit Digit	Cy	Cyclic Pattern of Unit digit
0		0
1		1
2		2, 6
3		3, 7, 1
4		6
5		
		6
		, 9, 3, 1
		8, 4, 2, 6
		9, 1



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$(-0)^- = 0$

$(-1)^- = 1$

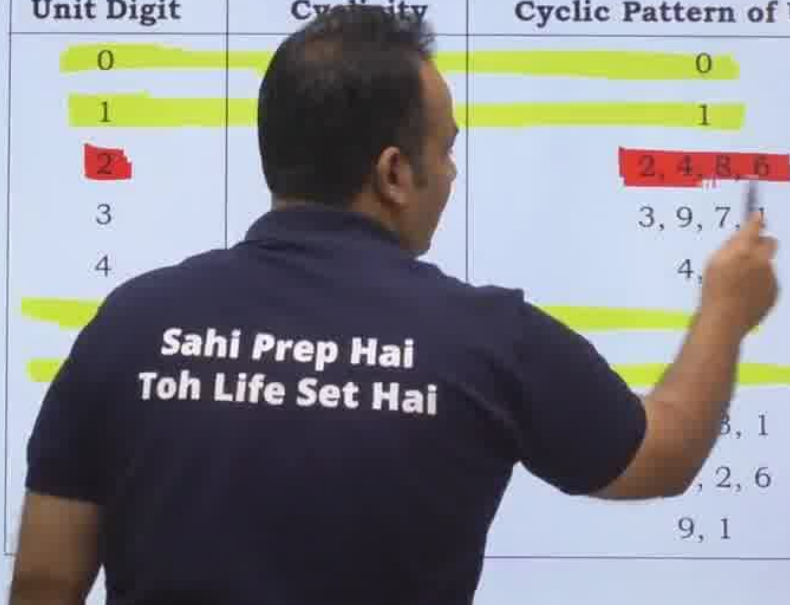
$(-5)^- = 5$

$(-6)^- = 6$

Summary

CYCLICITY TABLE

Unit Digit	Cyclicity	Cyclic Pattern of Unit digit
0		0
1		1
2		2, 4, 8, 6
3		3, 9, 7, 1
4		4,
		, 1
		, 2, 6
		9, 1



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$(-0)^{-} = 0$

$(-1)^{-} = 1$

$(-5)^{-} = 5$

$(-6)^{-} = 6$

Summary

CYCLICITY TABLE

Unit Digit	Cyclicity	Cyclic Pattern of Unit digit
0	1	0
1	1	1
2	4	2, 4, 8, 6
3	4	3, 9, 7, 1
	2	4, 6
		5
		6
		7, 9, 3, 1
		8, 4, 2, 6
		9, 1

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$(-0)^{-} = 0$

$(-1)^{-} = 1$

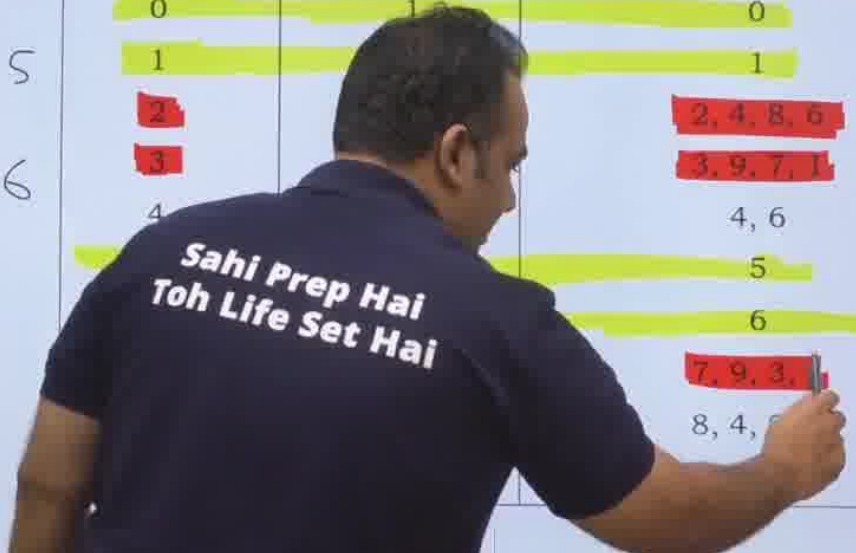
$(-5)^{-} = 5$

$(-6)^{-} = 6$

Summary

CYCLICITY TABLE

Unit Digit	Cyclicity	Cyclic Pattern of Unit digit
0	1	0
1	1	1
2	4	2, 4, 8, 6
3	4	3, 9, 7, 1
4	2	4, 6
5	1	5
6	1	6
7	4	7, 9, 3, 1
8	4	8, 4, 2, 6
9	2	9, 1



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$(-0)^{-} = 0$

$(-1)^{-} = 1$

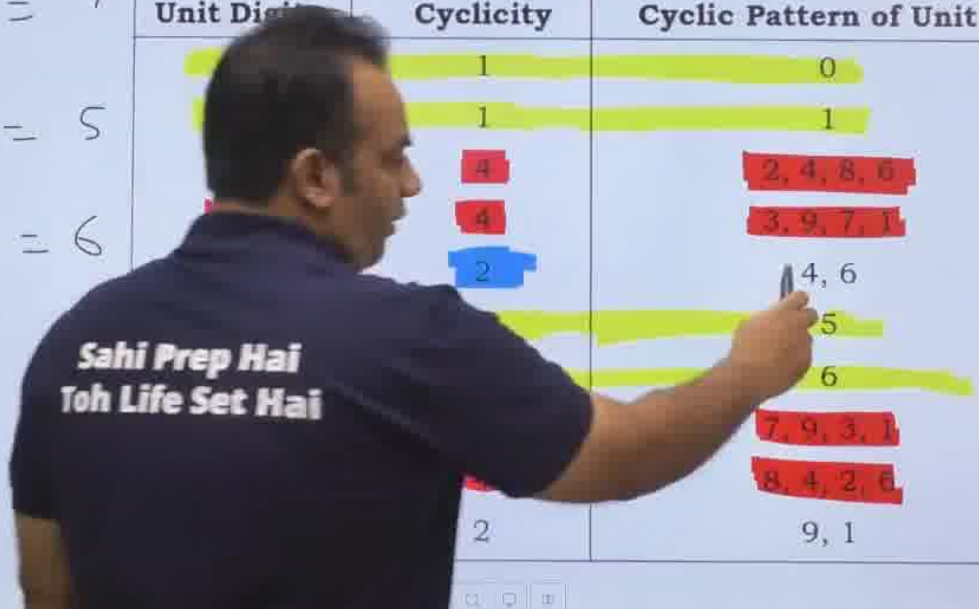
$(-5)^{-} = 5$

$(-6)^{-} = 6$

Summary

CYCLICITY TABLE

Unit Digit	Cyclicity	Cyclic Pattern of Unit digit
	1	0
	1	1
	4	2, 4, 8, 6
	4	3, 9, 7, 1
	2	4, 6
		5
		6
		7, 9, 3, 1
		8, 4, 2, 6
	2	9, 1



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Concept of Mother Cyclicity

As we can e that the cyclicity of all the unit digits e either 2 or 4. So if we forget the cyclicity of digit, can assume cyclicity to be 4 to get the t he number.

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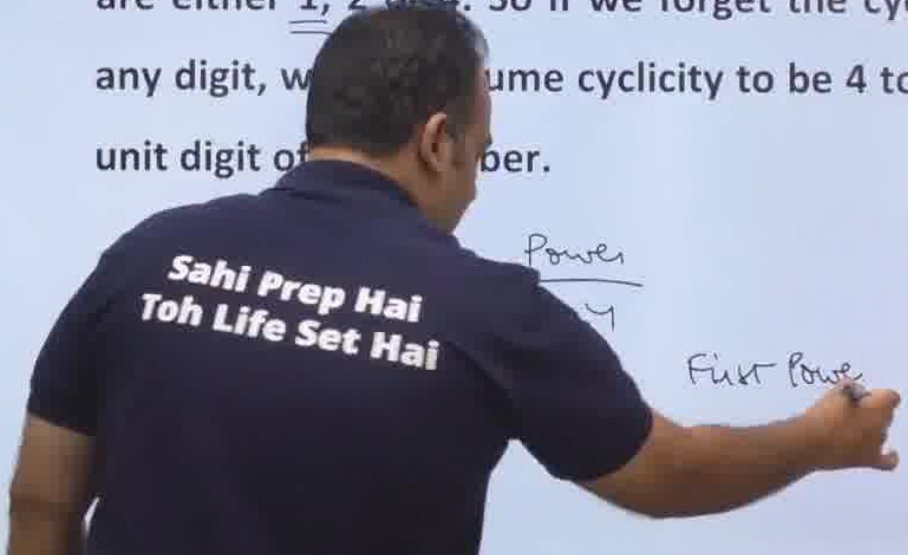
Concept of Mother Cyclicity

As we can see that the cyclicity of all the unit digits are either 1, 2 or 4. So if we forget the cyclicity of any digit, w ume cyclicity to be 4 to get the unit digit of ber.



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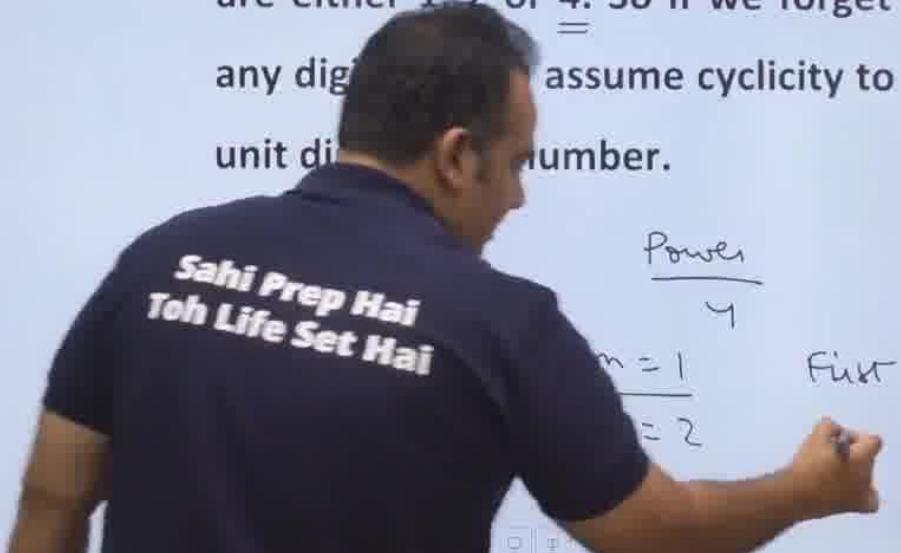
Concept of Mother Cyclicity

As we can see that the cyclicity of all the unit digits are either 1, 2 or 4. So if we forget the cyclicity of any digit and assume cyclicity to be 4 to get the unit digit of the number.



Power

4

First Power

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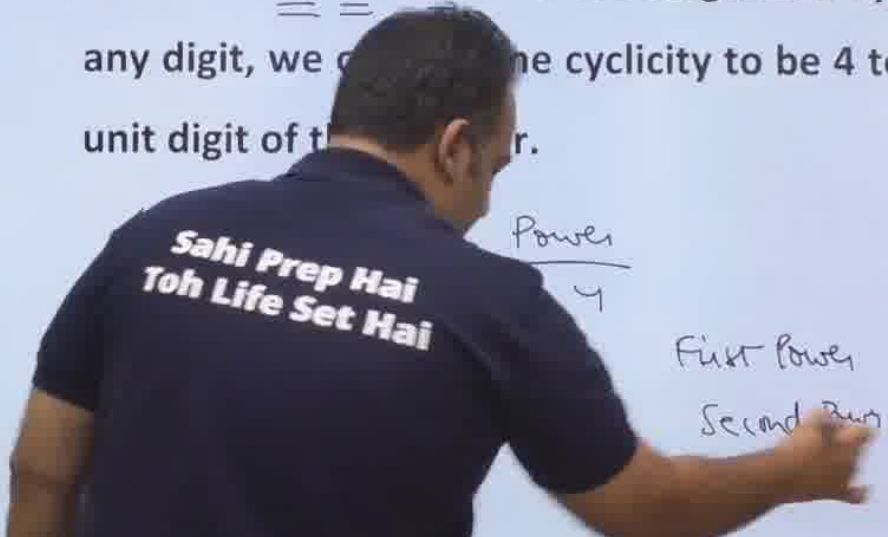
Concept of Mother Cyclicity

As we can see that the cyclicity of all the unit digits are either 1, 2 or 4. So if we forget the cyclicity of any digit, we c ne cyclicity to be 4 to get the unit digit of t r.



Power

4

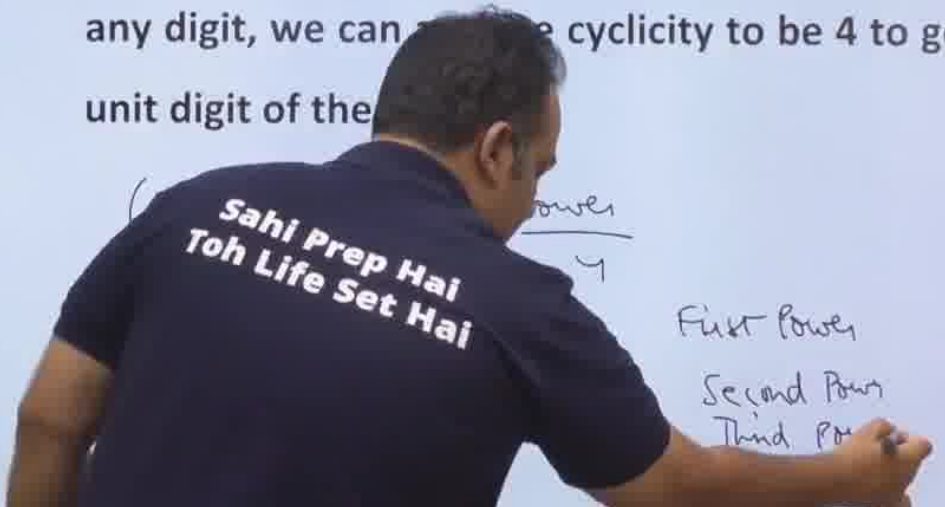
First Power

Second

gradeup

Concept of Mother Cyclicity

As we can see that the cyclicity of all the unit digits are either 1, 2 or 4. So if we forget the cyclicity of any digit, we can [illegible] cyclicity to be 4 to get the unit digit of the



First Power

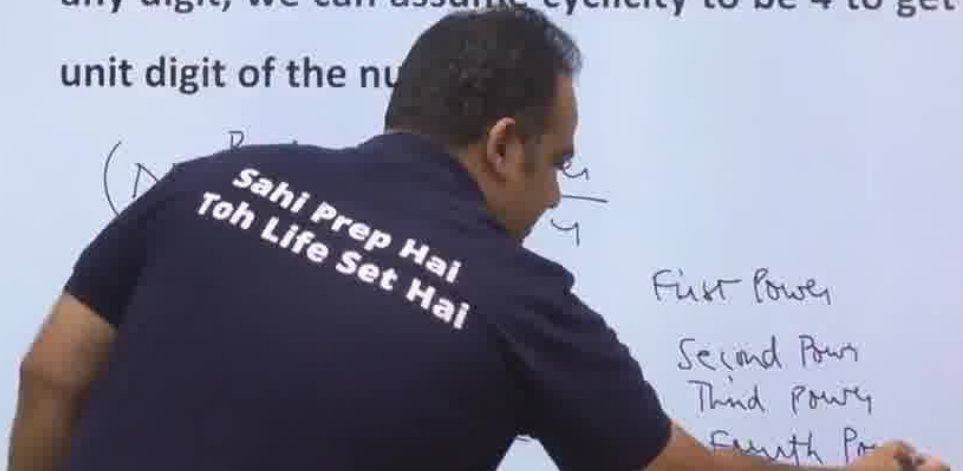
Second Power

Third Po

gradeup

Concept of Mother Cyclicity

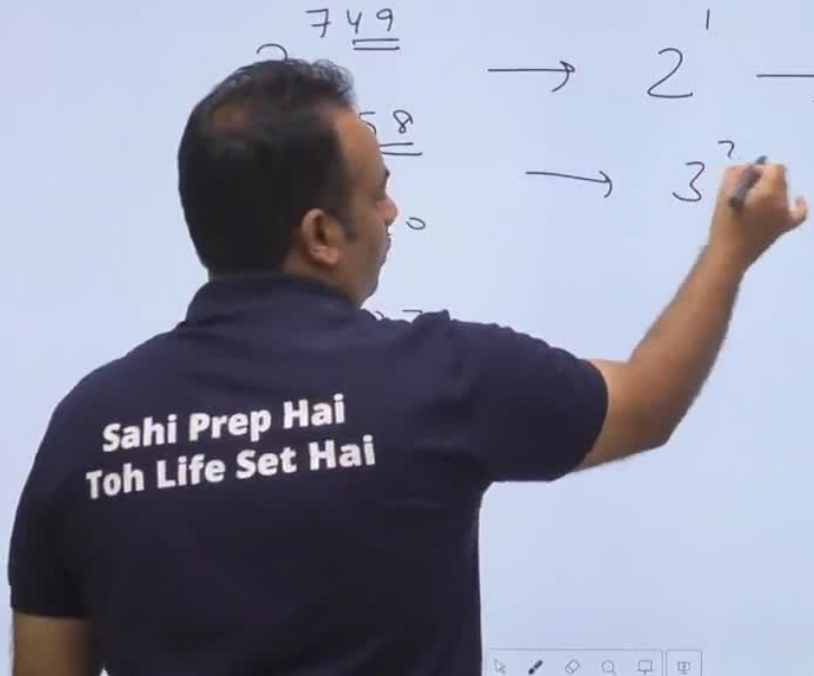
As we can see that the cyclicity of all the unit digits are either 1, 2 or 4. So if we forget the cyclicity of any digit, we can assume cyclicity to be 4 to get the unit digit of the nu



gradeup

Eg. 10 Find the unit digit of

2^{749}, 3^{658}, 4^{690}, 8^{123}, 7^{340}, 9^{126}



gradeup

Any Doubt

gradeup

Any Doubt

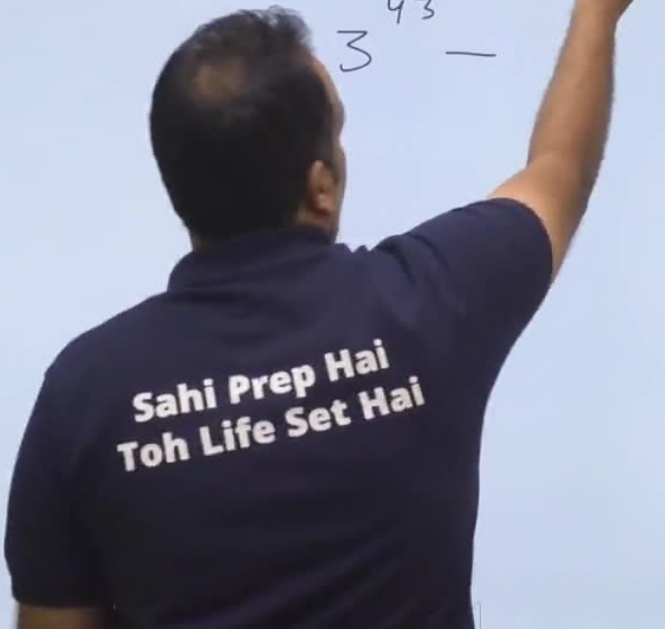
gradeup

Eg1. $(582)^{675} + (583)^{675}$

gradeup

Eg2. $(143)^{143} - (142)^{143}$

$3^{43} -$



gradeup

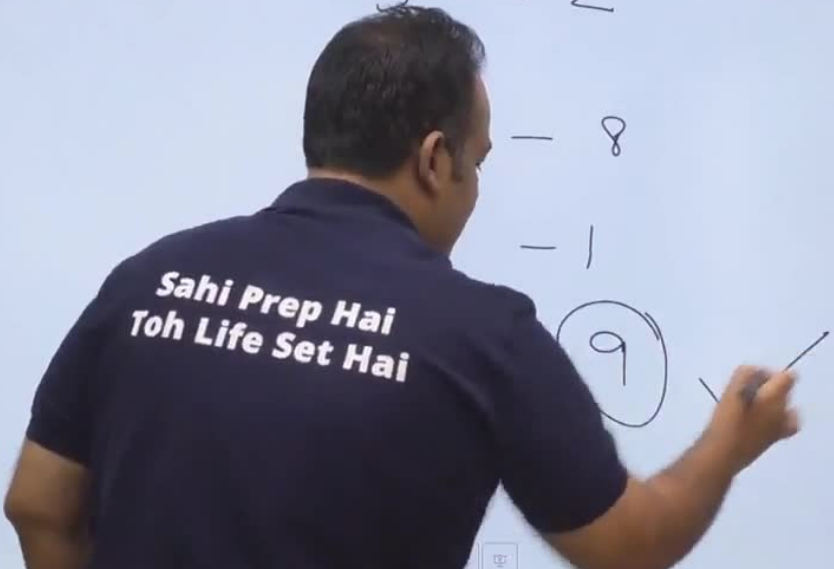
Eg2. $(143)^{143} - (142)^{143}$

$3^{43} - 2^{43}$

$- 8$

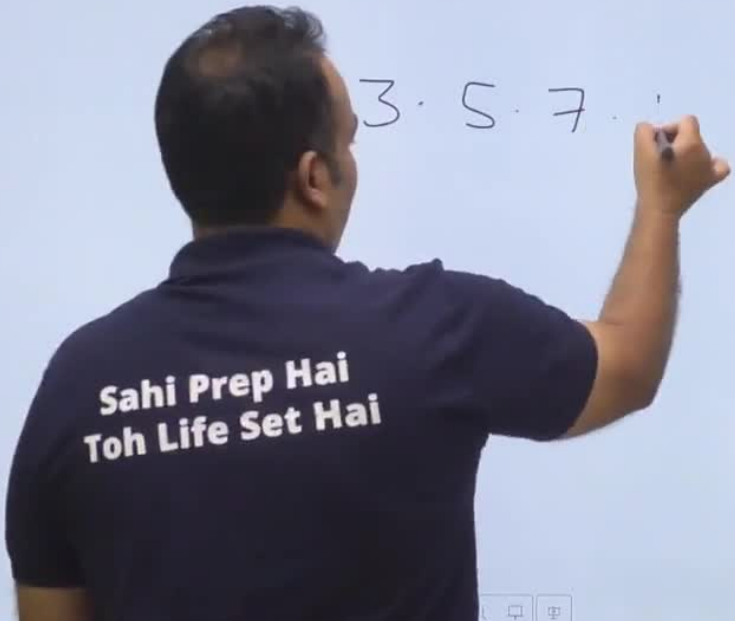
$- 1$

9



gradeup

Eg3. Find the unit digit of product of all prime numbers.



gradeup

V. imp for SSC

Eg4. Find the unit digit of

$$(348)^{757} \times (383)^{482} \times (367)^{415}$$

$\times\ 3^{82}$

Sahi Prep Hai
Toh Life Set Hai

gradeup

V. imp for SSC

Eg4. Find the unit digit of

$$(348)^{757} \times (383)^{482} \times (367)^{415}$$

$$8^{57} \times 3^{82} \times 7^{15}$$

$$8 \times 9$$

Sahi Prep Hai
Toh Life Set Hai

gradeup

V. Imp for SSC

Eg4. Find the unit digit of

$(348)^{757} \times (383)^{482} \times (367)^{415}$

$8^{82} \times 3^{82} \times 7^{15}$

9×3

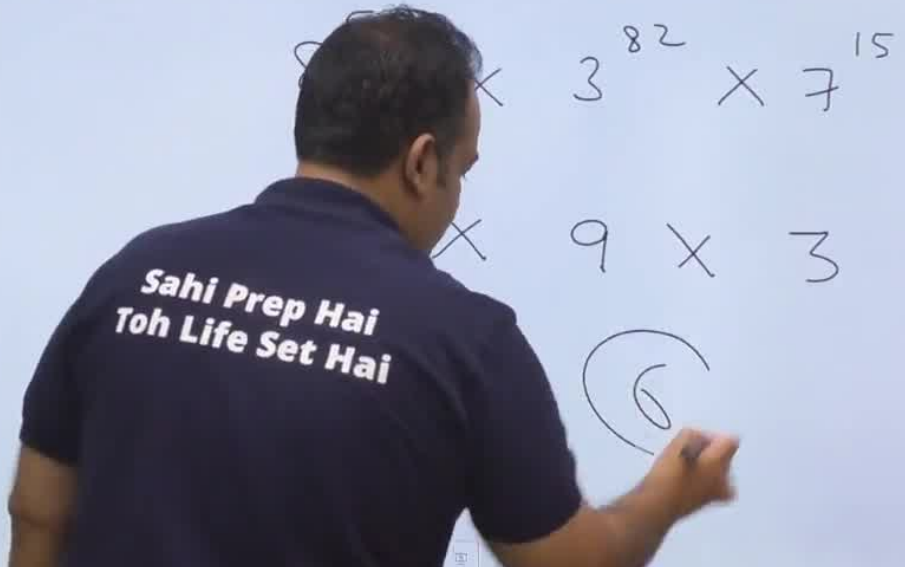
Sahi Prep Hai
Toh Life Set Hai

gradeup

Very imp for SSC

Eg4. Find the unit digit of

$(348)^{757} \times (383)^{482} \times (367)^{415}$



gradeup

V. Imp for SSC

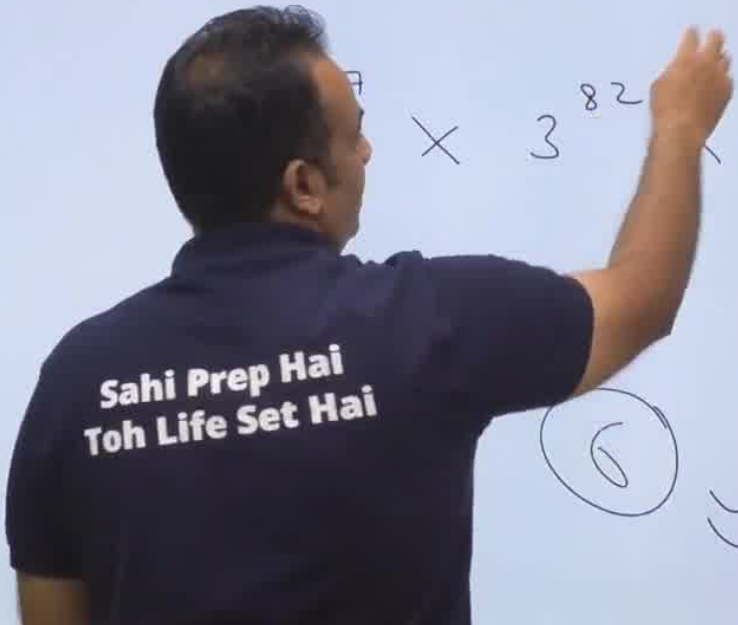
Eg4. Find the unit digit of

$$(348)^{757} \times (383)^{482} \times (367)^{415}$$

$\times\ 3^{82}\ \times\ 7^{15}$

3

6

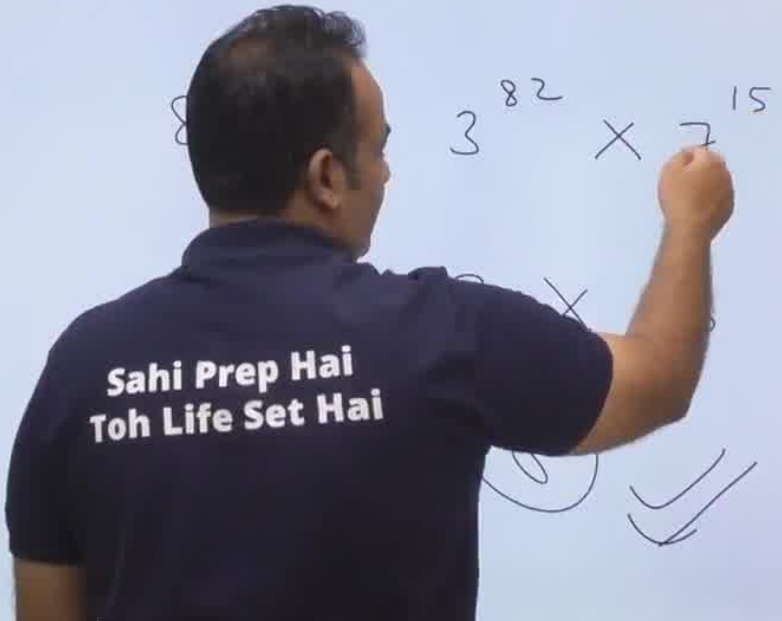


gradeup

Very imp for SSC

Eg4. Find the unit digit of

$$(348)^{757} \times (383)^{482} \times (367)^{415}$$



gradeup

Eg5. 1! + 2! + 3! + ... 50!

1! = 1

2! = 2

3! = 6

4! = 24

5! = 12

1 + 2 + 6 + 4 + 0

Note

gradeup

Eg5. 1! + 2! + 3! + ... 50!

1! = 1

2! = 2

3! = 6

4! = 24

5! = 120

1 + 2 + 6 + 4 + 0

Note :

gradeup

Eg5. 1! + 2! + 3! + ... 50!

1! = 1

2

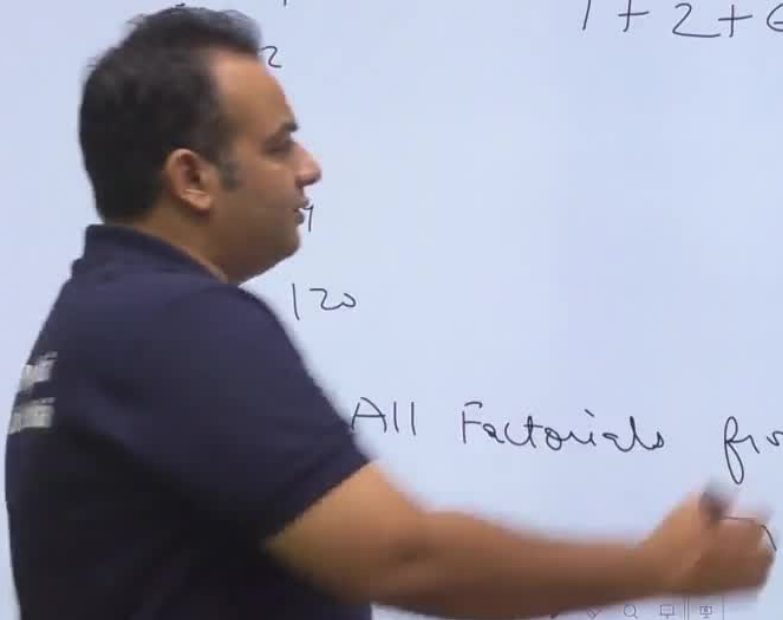
6

24

120

1 + 2 + 6 + 4 + 0

All Factorials from 5 onwards ends with "ZERO"

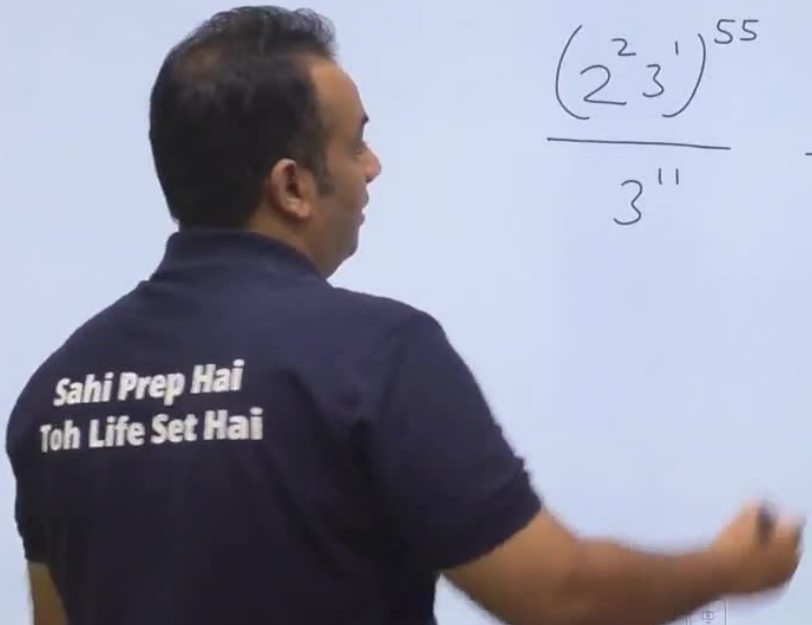


gradeup

$12 = 2^2 3^1$

Eg6. $\frac{12^{55}}{3^{11}} + \frac{8^{48}}{16^{18}}$

$\frac{(2^2 3^1)^{55}}{3^{11}} +$

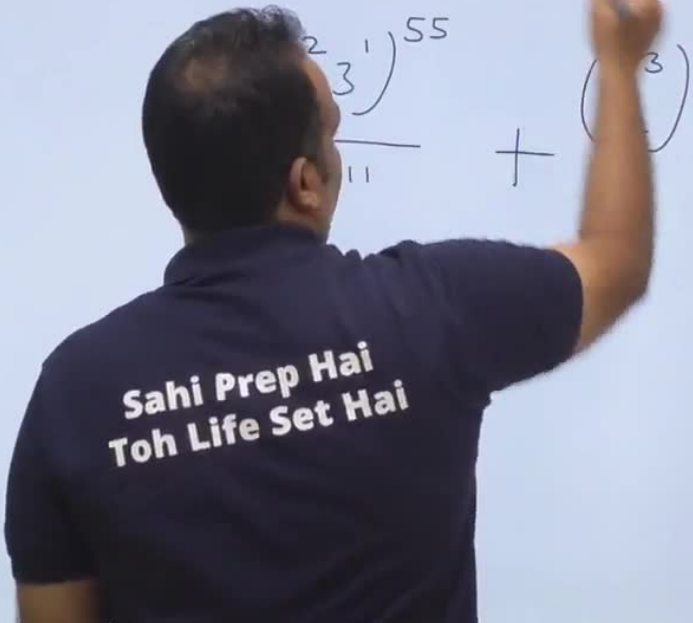


gradeup

$12 = 2^2 3^1$

Eg6. $\frac{12^{55}}{3^{11}} + \frac{8^{48}}{16^{18}}$

$\frac{(2^2 3^1)^{55}}{3^{11}} + \left(\frac{2^3}{2^4}\right)$

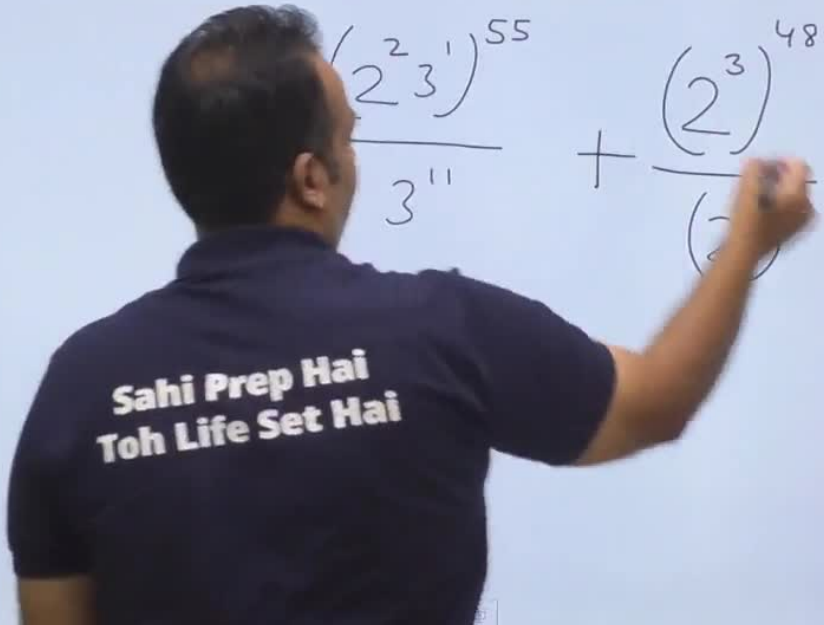


gradeup

$12 = 2^2 3^1$

Eg6. $\frac{12^{55}}{3^{11}} + \frac{8^{48}}{16^{18}}$

$\frac{(2^2 3^1)^{55}}{3^{11}} + \frac{(2^3)^{48}}{(\quad)^{\quad}}$



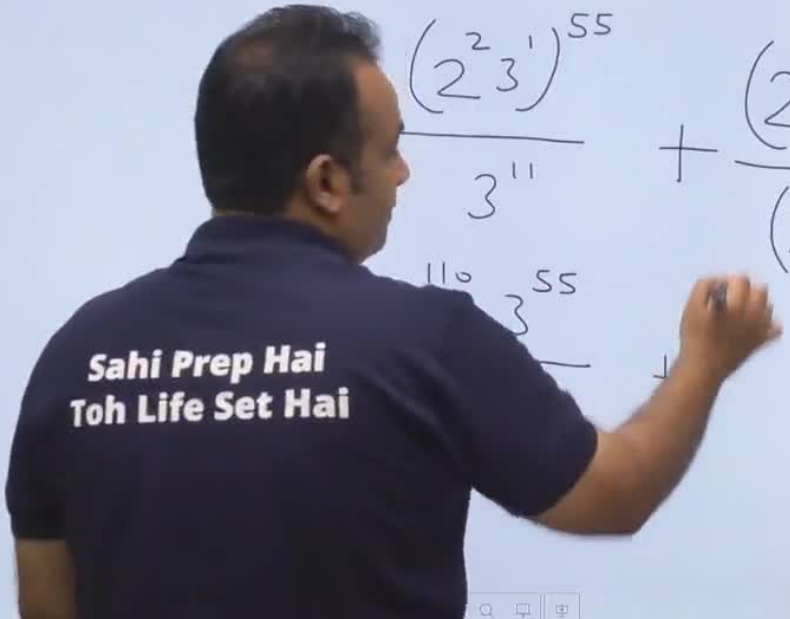
gradeup

$12 = 2^2 3^1$

Eg6. $\frac{12^{55}}{3^{11}} + \frac{8^{48}}{16^{18}}$

$\frac{(2^2 3^1)^{55}}{3^{11}} + \frac{(2^3)^{48}}{(2^4)^{18}}$

$2^{110} 3^{55}$



gradeup

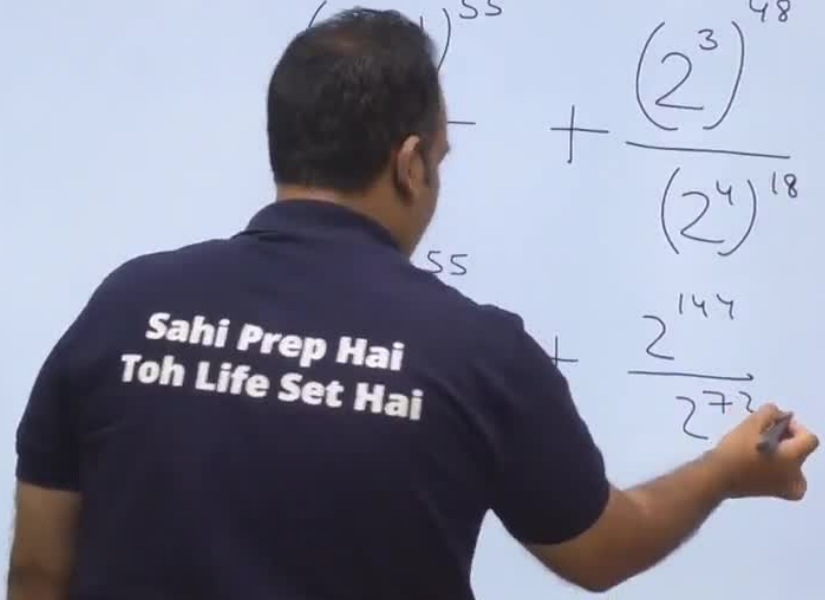
$12 = 2^2 3^1$

Eg6. $\frac{12^{55}}{3^{11}} + \frac{8^{48}}{16^{18}}$

$\frac{(\quad)^{55}}{\quad} + \frac{(2^3)^{48}}{(2^4)^{18}}$

^{55}

$+ \frac{2^{144}}{2^{72}}$



gradeup

Eg6. $\frac{12^{55}}{3^{11}} + \frac{8^{48}}{16^{18}}$

$12 = 2^2 3^1$

$\frac{(2^2 3^1)^{55}}{3^{11}} + \frac{(2^3)^4}{(2^4)^{18}}$

$\frac{2^{110} \cdot 3^{44}}{3^{11}} + \frac{2^{147} \cdot 2^{72}}{2^{72}}$

$2^{110} \cdot 3^{44} + 2^{72}$

$4 \cdot 1 + 6$

$= 0$

9971658659

gradeup

9971658659

Eg6. $\frac{12^{55}}{3^{11}} + \frac{8^{48}}{16^{18}}$

$12 = 2^2 3^1$

$\frac{(2^2 3^1)^{55}}{3^{11}} + \frac{(2^3)^{48}}{(2^4)^{18}}$

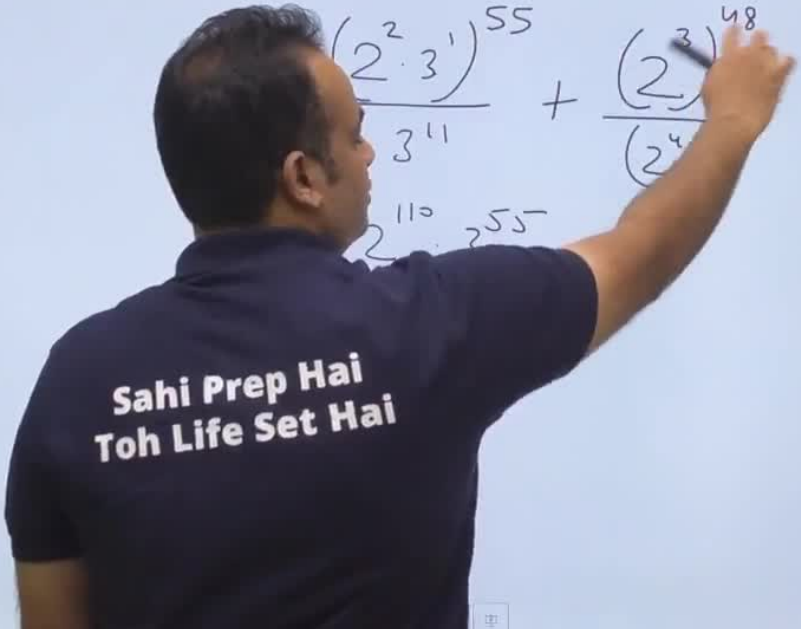
$\frac{2^{110} \cdot 3^{44}}{3^{11}} + \frac{2^{144}}{2^{72}}$

gradeup

Eg6. $\frac{12^{55}}{3^{11}} + \frac{8^{48}}{16^{18}}$

$\frac{(2^2 \cdot 3^1)^{55}}{3^{11}} + \frac{(2^3)^{48}}{(2^4$

2^{110} ... 2^{55}



gradeup

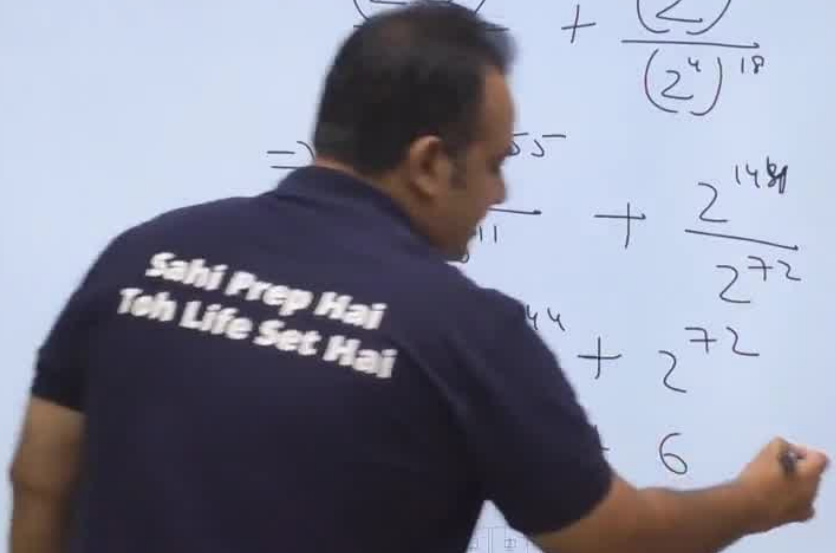
Eg6. $\frac{12^{55}}{3^{11}} + \frac{8^{48}}{16^{18}}$

$= \frac{(2^2 \cdot 3^1)^{55}}{} + \frac{(2^3)^{48}}{(2^4)^{18}}$

$= \frac{}{} + \frac{2^{144}}{2^{72}}$

$+ 2^{72}$

6

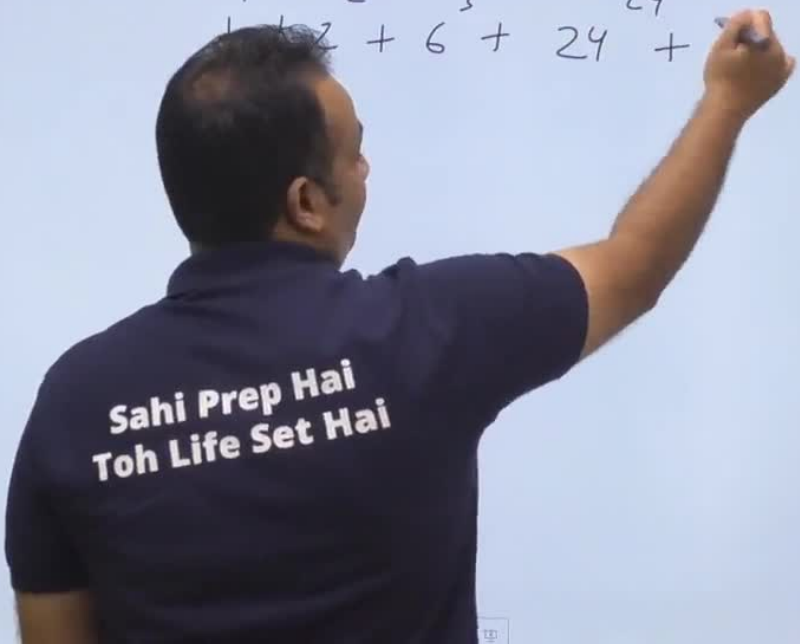


gradeup

Eg7. $(1!)^1 + (2!)^2 + (3!)^3 + \ldots\ldots\ldots (100!)^{100}$

1 2 3 24

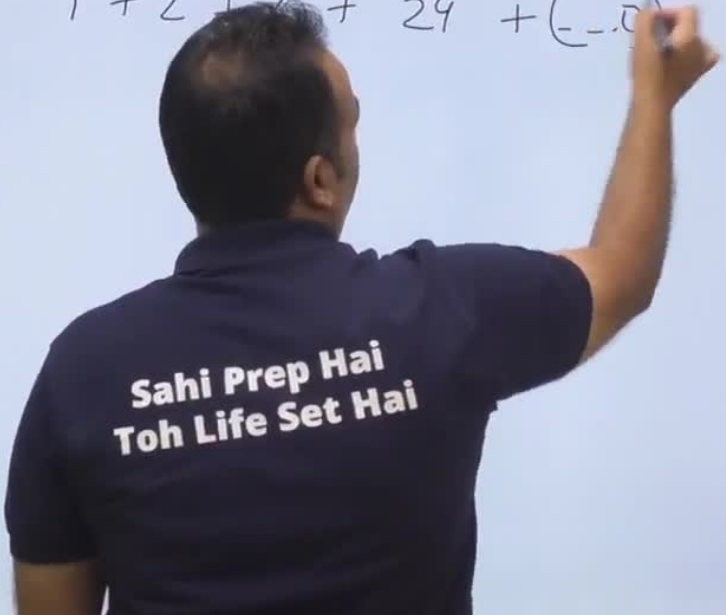
$+ 6 + 24 +$



gradeup

Eg7. $(1!)^1 + (2!)^2 + (3!)^3 + \ldots\ldots\ldots (100!)^{100}$

$1^1 + 2^2 + \ldots + 24^{24} + (\_\_\ldots$

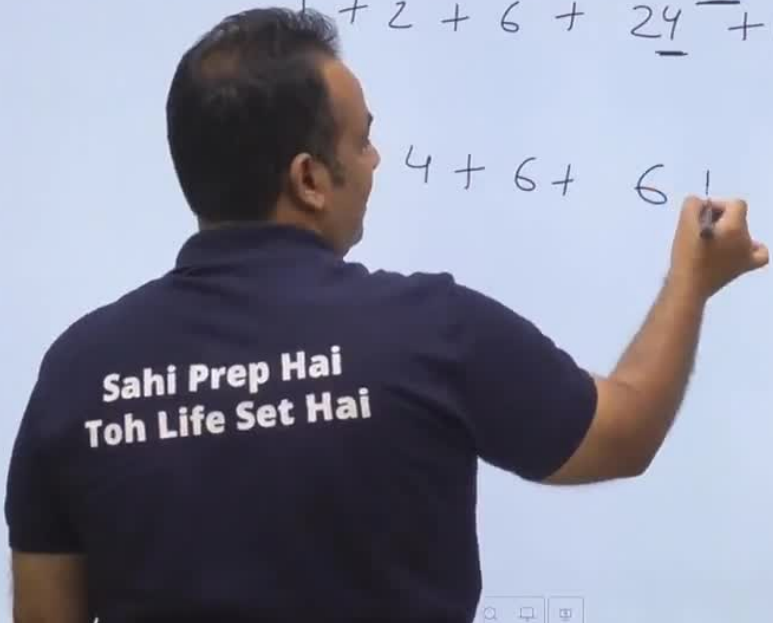


gradeup

Eg7. $(1!)^1 + (2!)^2 + (3!)^3 + \ldots\ldots\ldots (100!)^{100}$

$1^1 + 2^2 + 6^3 + 24^{24} + (\_\_.0)^{-} + - \_\_\_$

$4 + 6 + 6!$



gradeup

Eg7. $(1!)^1 + (2!)^2 + (3!)^3 + \ldots\ldots (100!)^{100}$

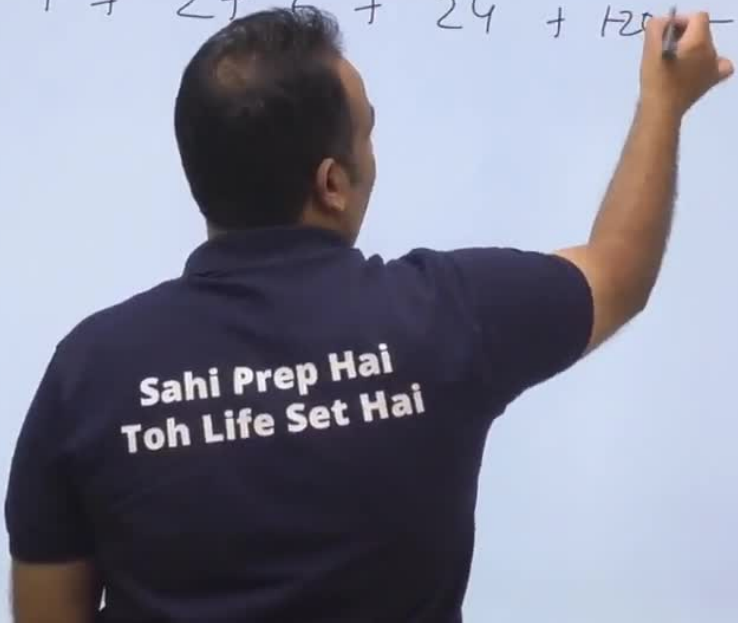
$1^1 + 2 + 6^3 + 2$

Sahi Prep Hai
Toh Life Set Hai

gradeup

Eg7. $(1!)^1 + (2!)^2 + (3!)^3 + \ldots\ldots\ldots (100!)^{100}$

$1^1 + 2 + 6^3 + 24^4 + 120 \ldots$

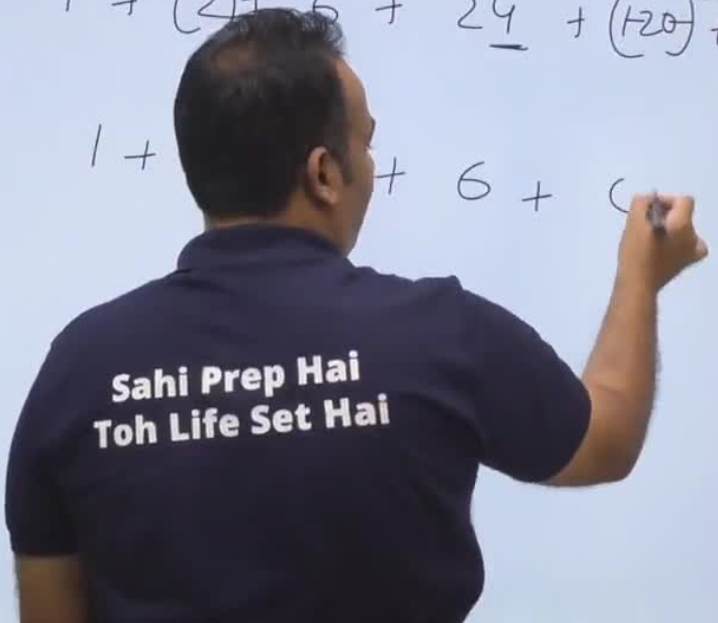


gradeup

Eg7. $(1!)^1 + (2!)^2 + (3!)^3 + \ldots\ldots\ldots (100!)^{100}$

$1^1 + (2)^2 + 6^3 + 24^4 + (120)^5 + - - -$

$1 + \quad + 6 + \quad$



gradeup

Eg8. $32^{33^{34}}$

Step 1 → $2^{33^{34}}$

Cyclicity

Sahi Prep Hai
Toh Life Set Hai

gradeup

Eg8. $32^{33^{34}}$

Step 1 → $2^{33^{34}}$ →

4 + 4 of 2 4

Sahi Prep Hai
Toh Life Set Hai

gradeup

Eg9. $37^{39^{41}}$

$7^{39^{41}}$

$\frac{39^{41}}{\quad} = \frac{(-1)^{41}}{\quad}$

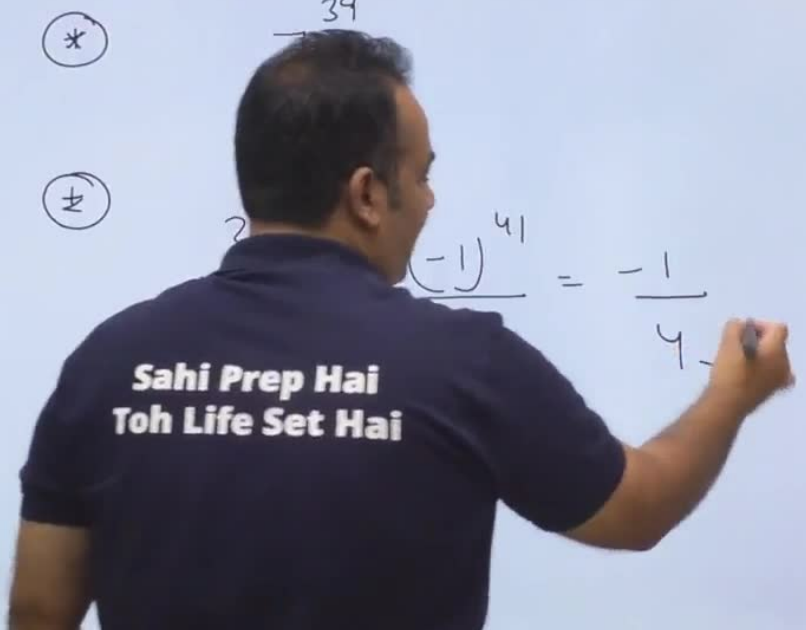
Sahi Prep Hai
Toh Life Set Hai

gradeup

Eg9. $37^{39^{41}}$

(*)

(±)



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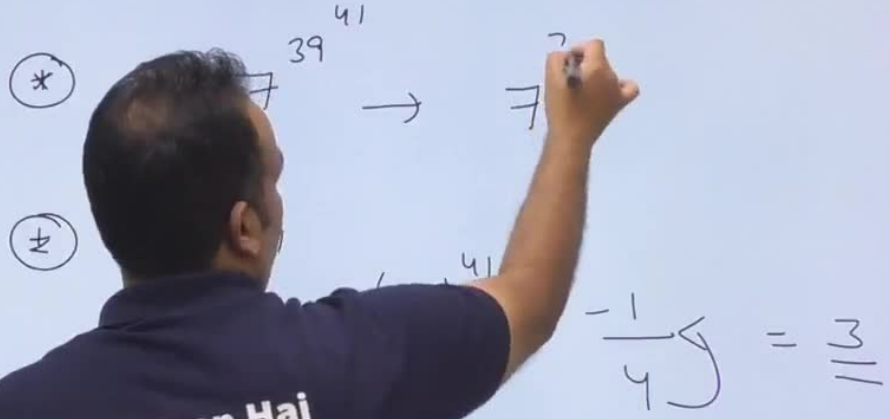
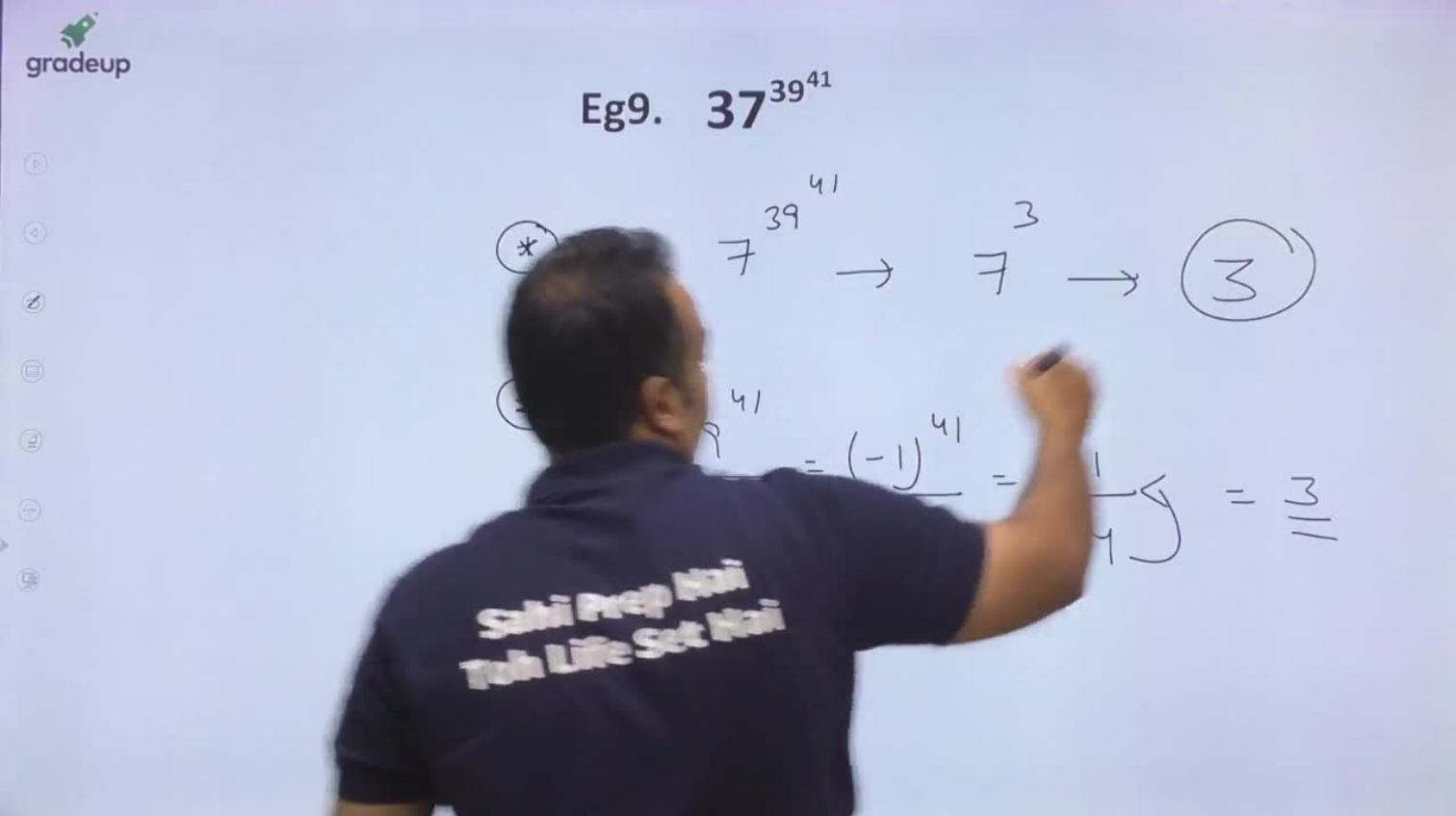
Eg9. $37^{39^{41}}$

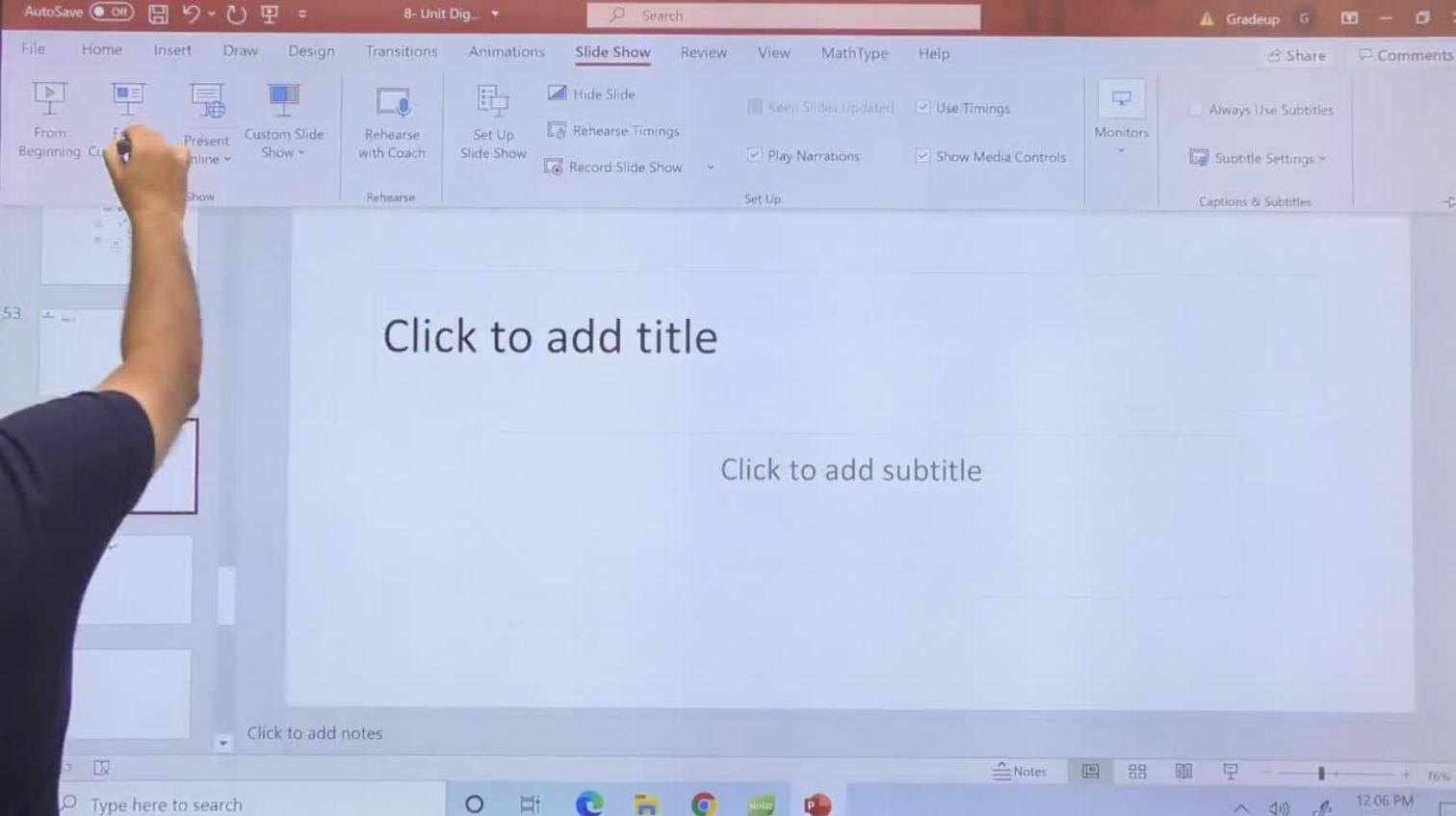


Sahi Prep Hai
Toh Life Set Hai

gradeup

Eg9. $37^{39^{41}}$

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Animations
Slide Show
Review
View
MathType
Help
Share
Comments
From Beginning
Present Online
Custom Slide Show
Show
Rehearse with Coach
Rehearse
Set Up Slide Show
Hide Slide
Rehearse Timings
Record Slide Show
Keep Slides Updated
Use Timings
Play Narrations
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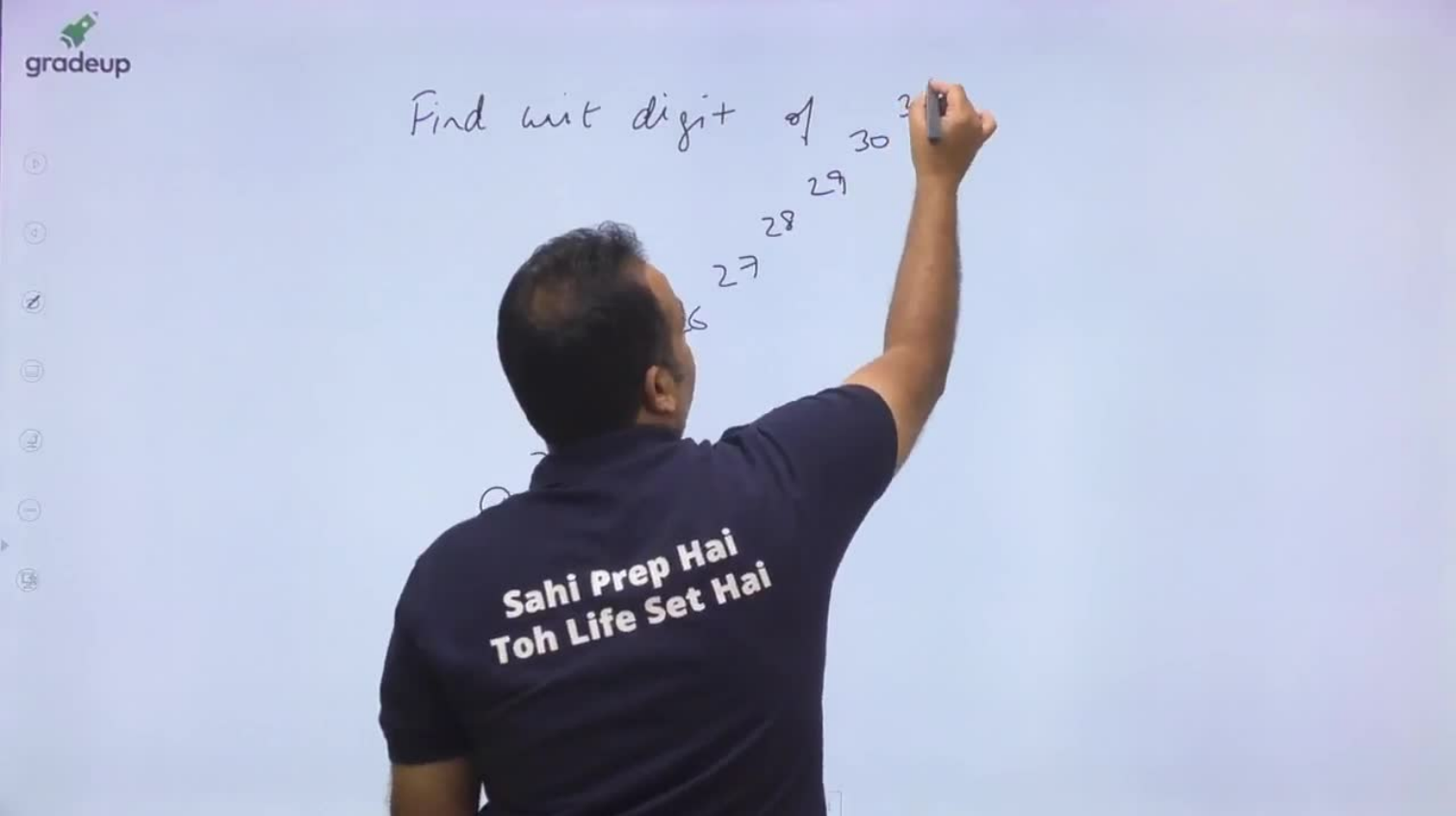
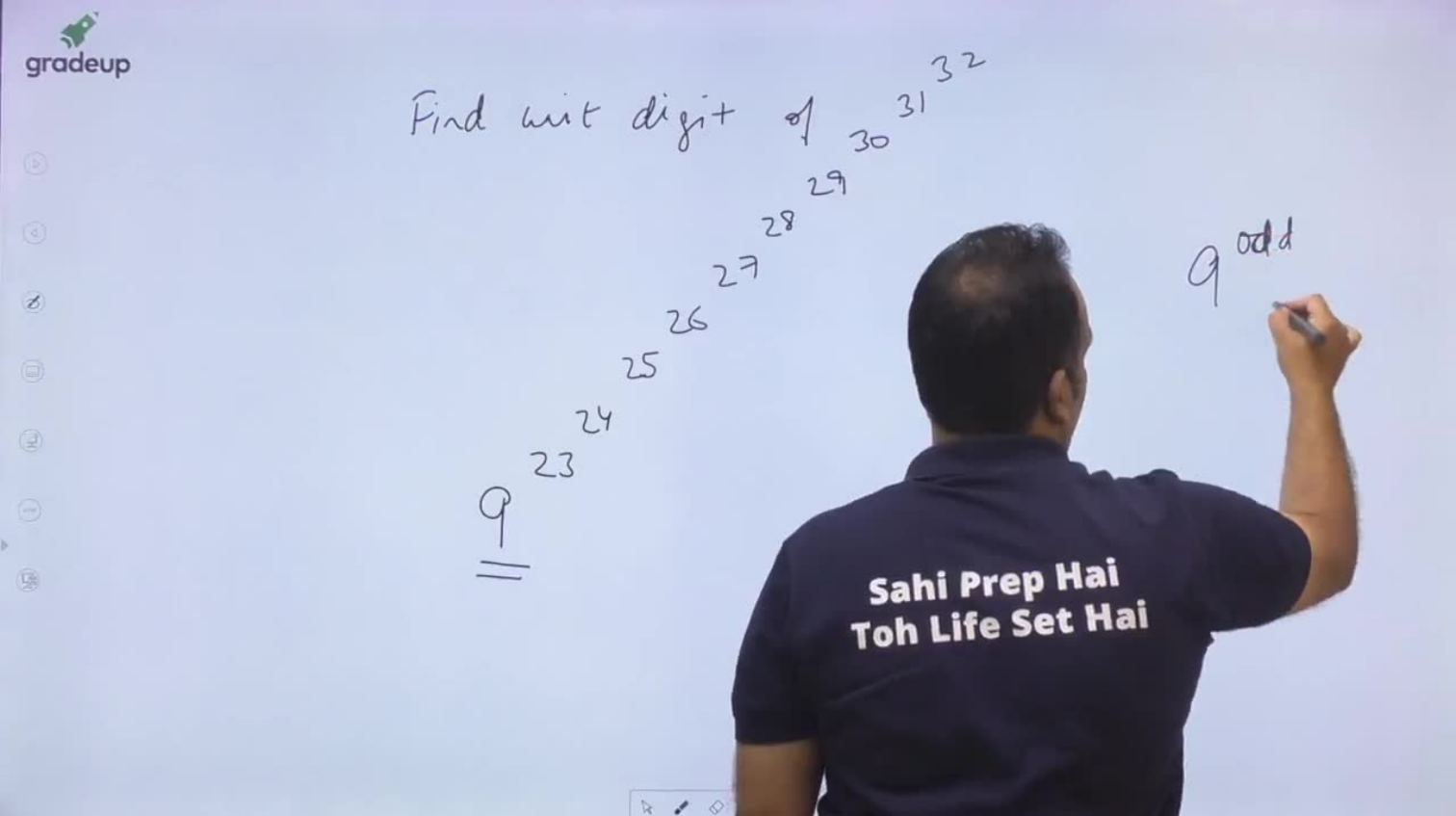

gradeup
Find unit digit of
30
29
28
27
Sahi Prep Hai
Toh Life Set Hai


gradeup
Find unit digit of
9^{23}
9^{odd}
Sahi Prep Hai
Toh Life Set Hai

gradeup

Find unit digit of $30^{31^{32}}$

29

28

27

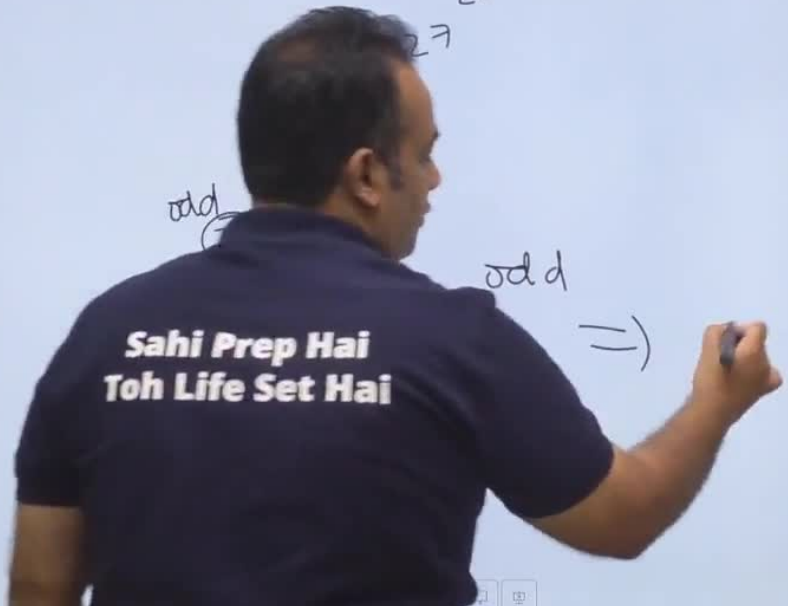
odd

odd

$\Rightarrow$

$9^{odd} \rightarrow 9$

$9^{even} \rightarrow 1$



gradeup

Eg10. $9^{23^{32}}$

$9^{odd} = 9$

(i)

(ii) 9^{2}

Sahi Prep Hai
Toh Life Set Hai

gradeup

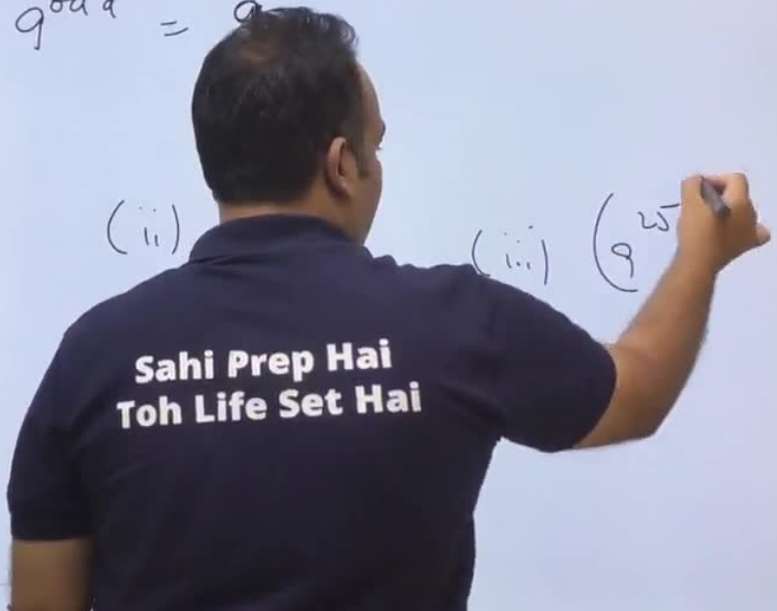
Eg10. $9^{23^{32}}$

$9^{odd} = 9$

(i) $9^{24^{25}}$

(ii)

(iii) $(9^{25}$



gradeup

Eg10. $9^{23^{32}}$

$9^{odd} = 9$

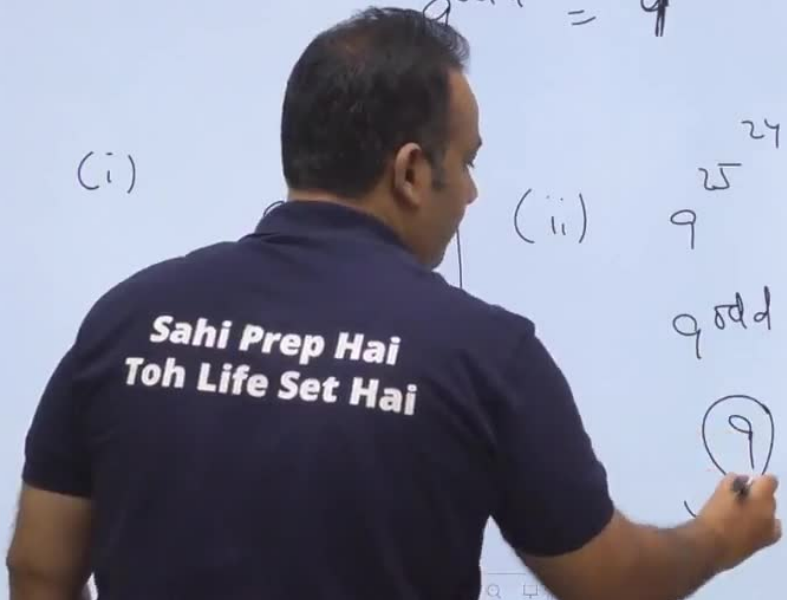
(i)

(ii) $9^{5^{24}}$

9^{odd}

9

(iii) $(9^5)^{24}$



gradeup

Eg10. $9^{23^{32}}$

$9^{odd} = 9$

(i) 9^{5}

9^{even}

(ii) $9^{25^{24}}$

9^{odd}

9

(iii) $(9^{25})^{24}$

9^{even}

1 ✓

gradeup

Eg10. $9^{23^{32}}$

$9^{odd} = 9$

(i) $9^{24^{25}}$

9 even

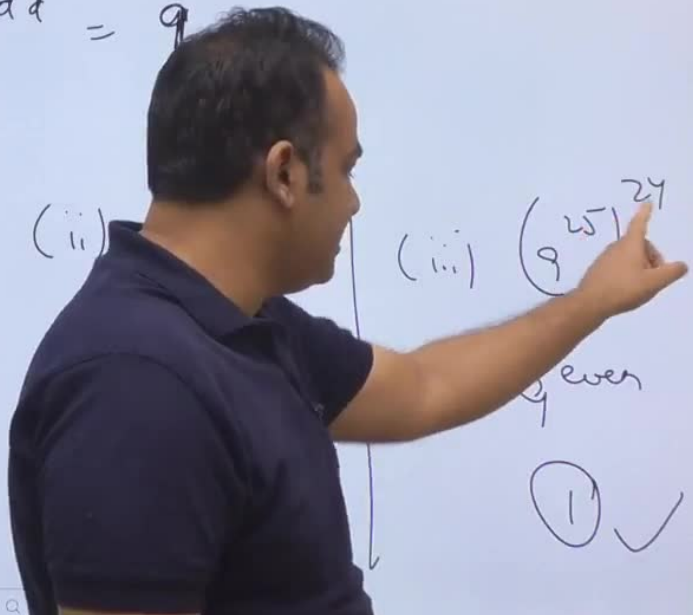
1

(ii)

(iii) $(9^{25})^{24}$

9 even

1

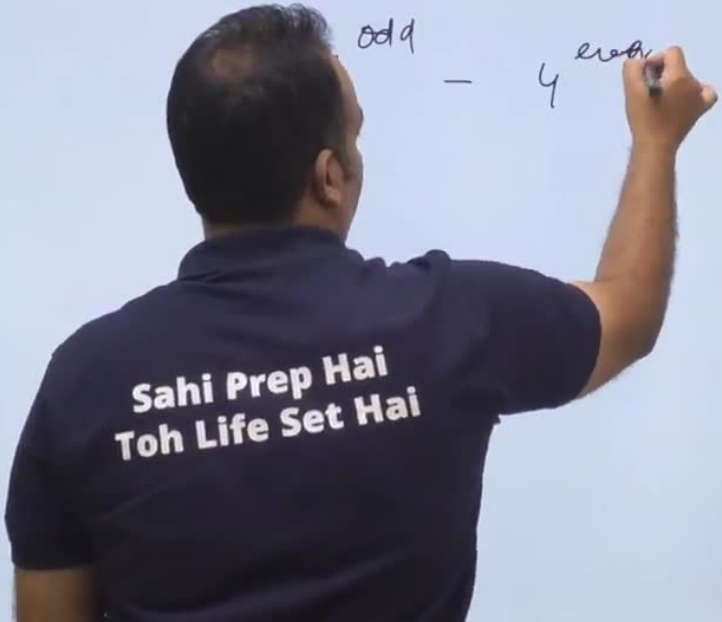


gradeup

Eg11. $4^{29^{30}} - 4^{30^{29}}$

odd

$- \quad 4^{\text{even}}$



gradeup

Eg11. $4^{29^{30}} - 4^{30^{29}}$

odd

even

$- \quad 4$

$- \quad 6 \quad = \quad -$

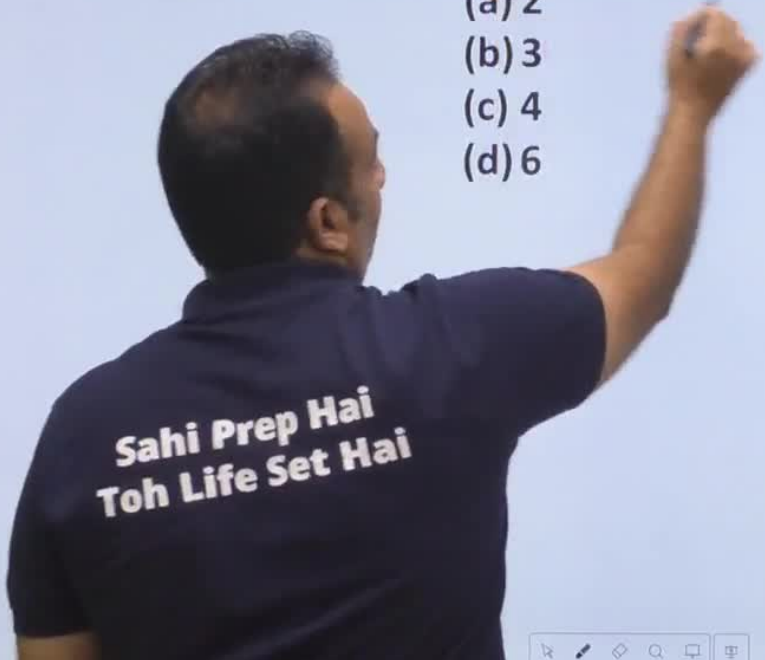
Sahi Prep Hai
Toh Life Set Hai

gradeup

PYQ of SSC

Eg12. If the unit digit of 833×856×43N is N+2, then what is the value of N?

(a) 2
(b) 3
(c) 4
(d) 6



gradeup

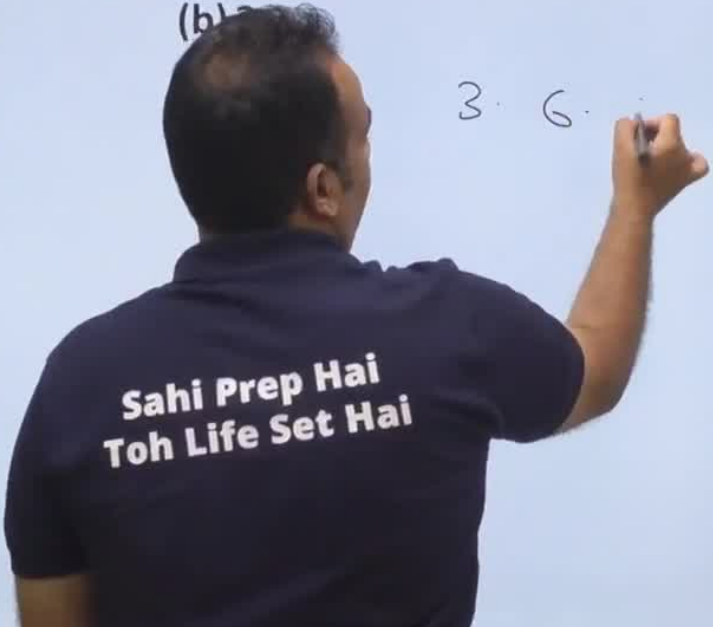
PYQ of SSC

Eg12. If the unit digit of 833×856×43N is N+2, then what is the value of N?

(a) 2

(b)

3 · 6 ·



gradeup

PYQ of SSC

Eg12. If the unit digit of 833×856×43N is N+2, then what is the value of N?

(a) 2

(b) 3

(

$3 \cdot 6 \cdot N \longrightarrow N+2$

(a) $3 \cdot 6 \cdot 2$

Sahi Prep Hai
Toh Life Set Hai

gradeup

PYQ of SSC

Eg12. If the unit digit of 833×856×43N is N+2, then what is the value of N?

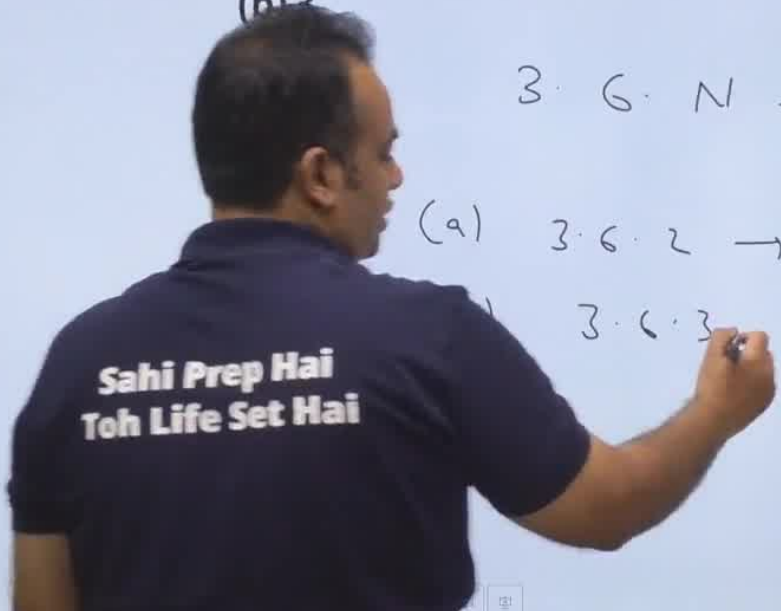
(a) 2

(b) 3

$3 \cdot 6 \cdot N \longrightarrow N+2$

(a) $3 \cdot 6 \cdot 2 \rightarrow 2+2$ ✗

$3 \cdot 6 \cdot 3$



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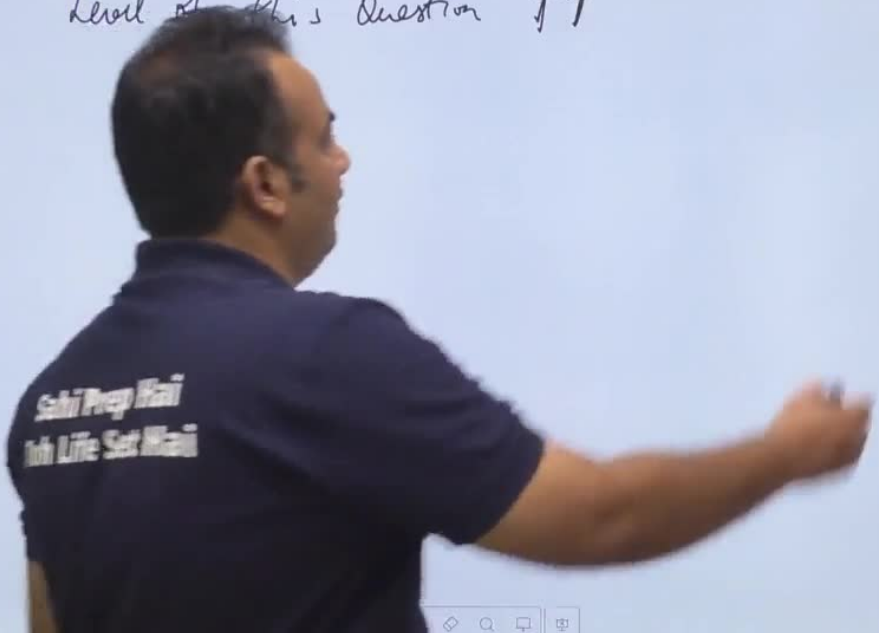
Eg14. $1^{1!} + 2^{2!} + 3^{3!} + \ldots\ldots\ldots 99^{99!} + 100^{100!}$

Level of this Question TT



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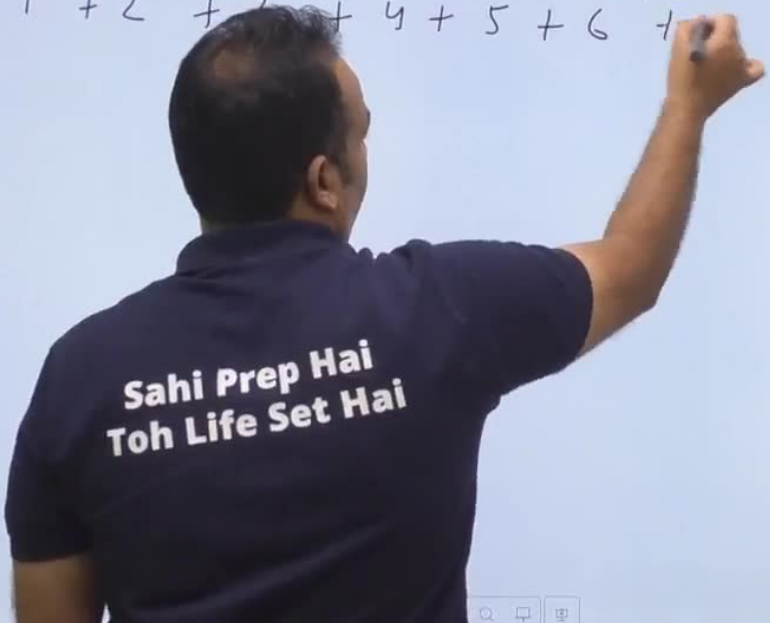
Eg14. $1^{1!} + 2^{2!} + 3^{3!} + \ldots\ldots\ldots 99^{99!} + 100^{100!}$

$1^{1!} + 2^{2!} + 3^{3!} + 4^{4!} + 5^{5!} + 6^{6!} +$



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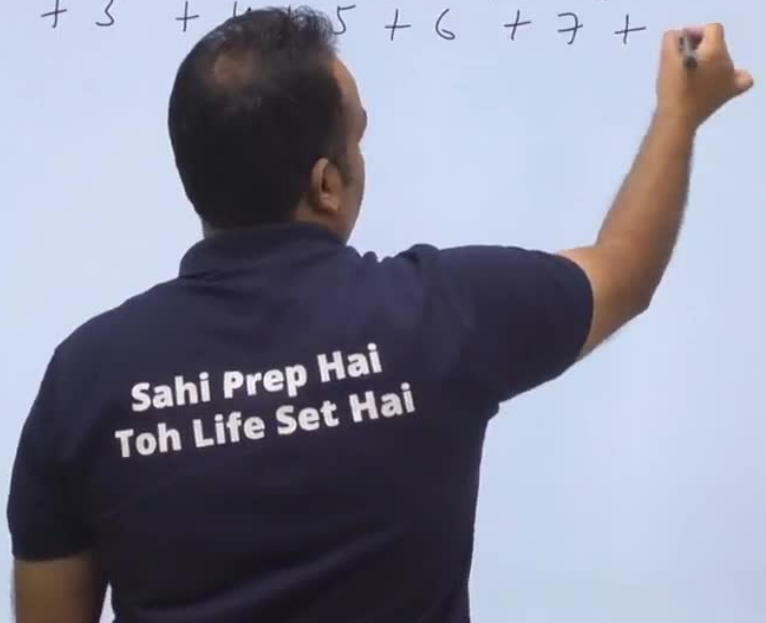
Eg14. $1^{1!} + 2^{2!} + 3^{3!} + \ldots\ldots\ldots 99^{99!} + 100^{100!}$

$1^{1!} + 2^{2!} + 3^{3!} + 4^{4!} + 5^{5!} + 6^{6!} + 7^{7!} +$



Eg14. $1^{1!} + 2^{2!} + 3^{3!} + \ldots\ldots\ldots\ 99^{99!} + 100^{100!}$

$1^{1!} + 2^{2!} + 3^{3!} + 4^{4!} + 5^{5!} + 6^{6!} + 7^{7!} + 8^{8!} + 9^{9!} + 10^{10!}$

$11^{11!} + 12^{12!} + 13^{13!} + \ldots\ldots\ldots\ldots\ 20^{20!}$

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Eg14. $1^{1!} + 2^{2!} + 3^{3!} + \ldots\ldots\ldots\ldots 99^{99!} + 100^{100!}$

$1^{1!} + 2^{2!} + 3^{3!} + 4^{4!} + 5^{5!} + 6^{6!} + 7^{7!} + 8^{8!} + 9^{9!} + 10^{10!}$

$11^{11!} + 12^{12!} + 13^{13!} + \ldots\ldots 20^{20!}$

$91^{91!} + 92^{92!} + \ldots\ldots 10$

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Eg14. $1^{1!} + 2^{2!} + 3^{3!} + \ldots\ldots\ldots 99^{99!} + 100^{100!}$

$1 + 2 + 3 + 4 + 5 + 6 + 7 + 8 + 9 + 10$

$11 + 12 + \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots 20$

$91 + \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots 100$

0

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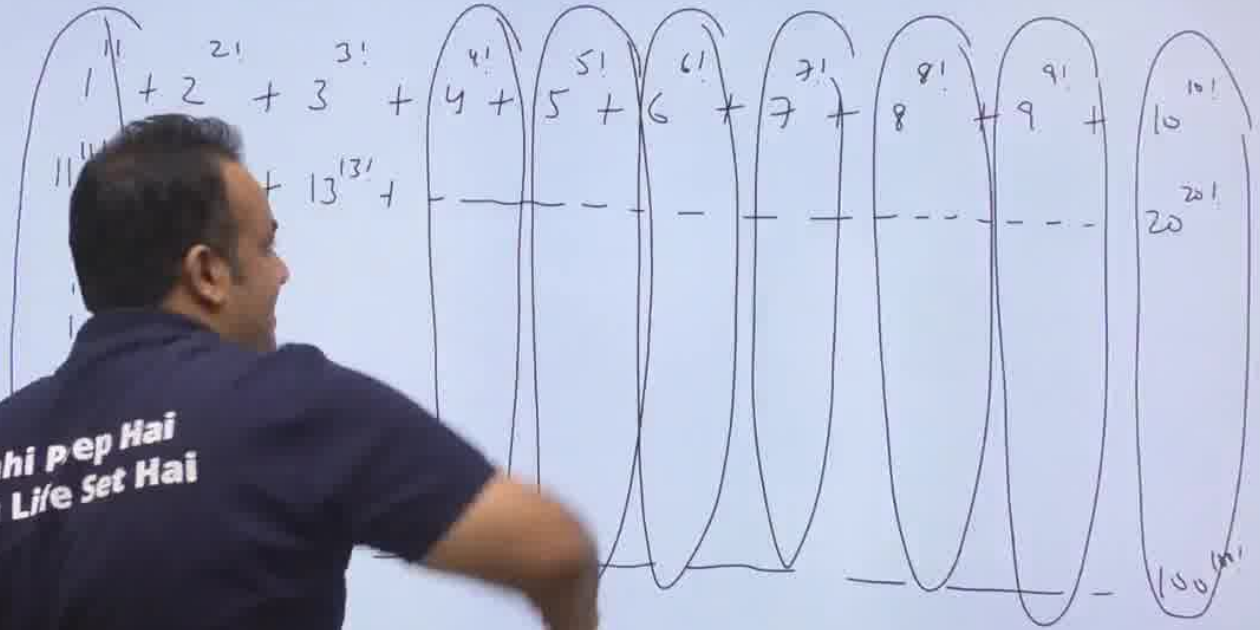
Eg14. $1^{1!} + 2^{2!} + 3^{3!} + \ldots\ldots\ldots 99^{99!} + 100^{100!}$



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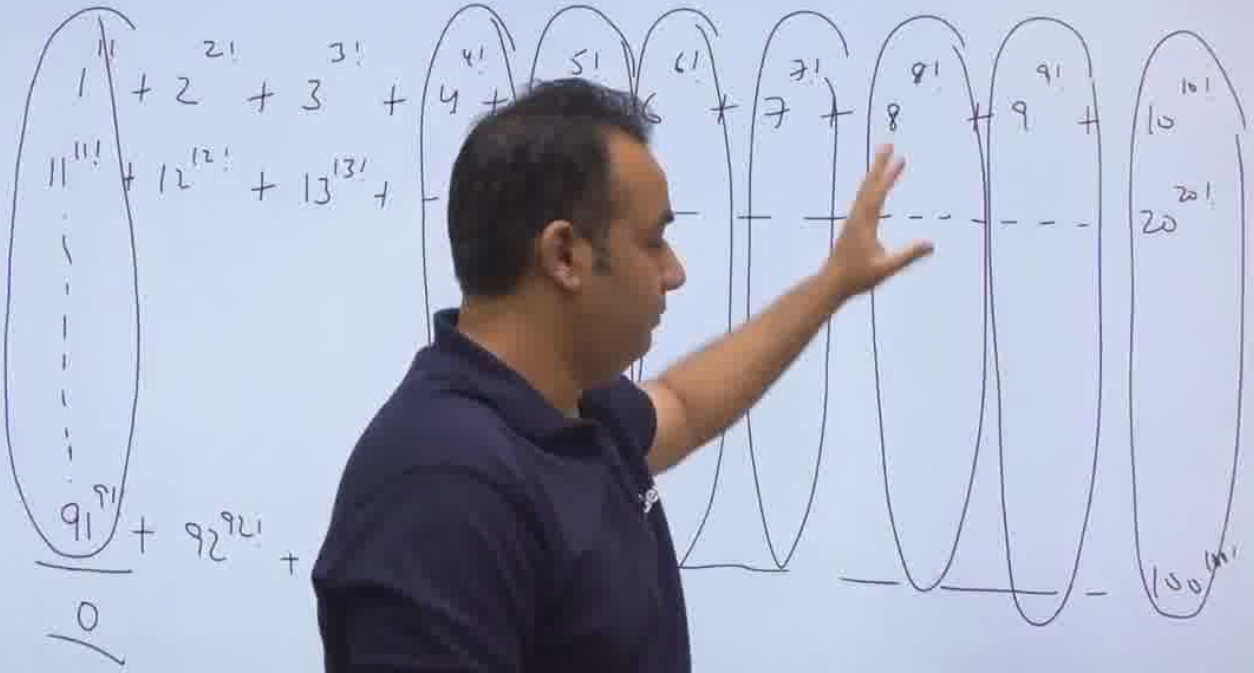
Eg14. $1^{1!} + 2^{2!} + 3^{3!} + \ldots\ldots\ldots 99^{99!} + 100^{100!}$



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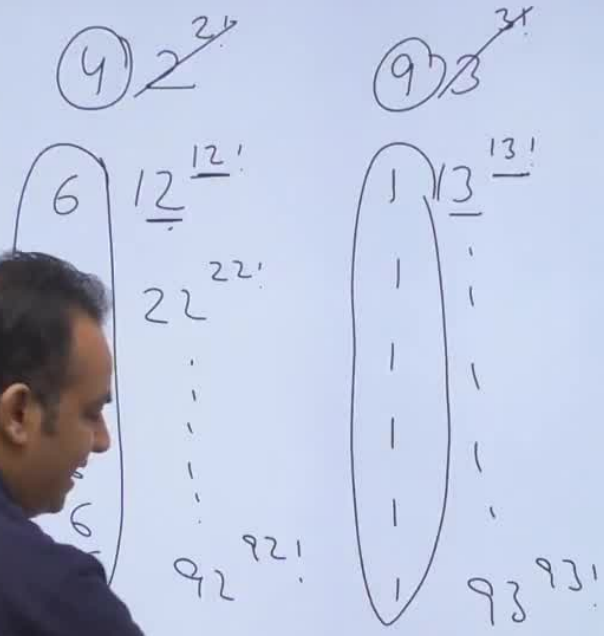
Ans.



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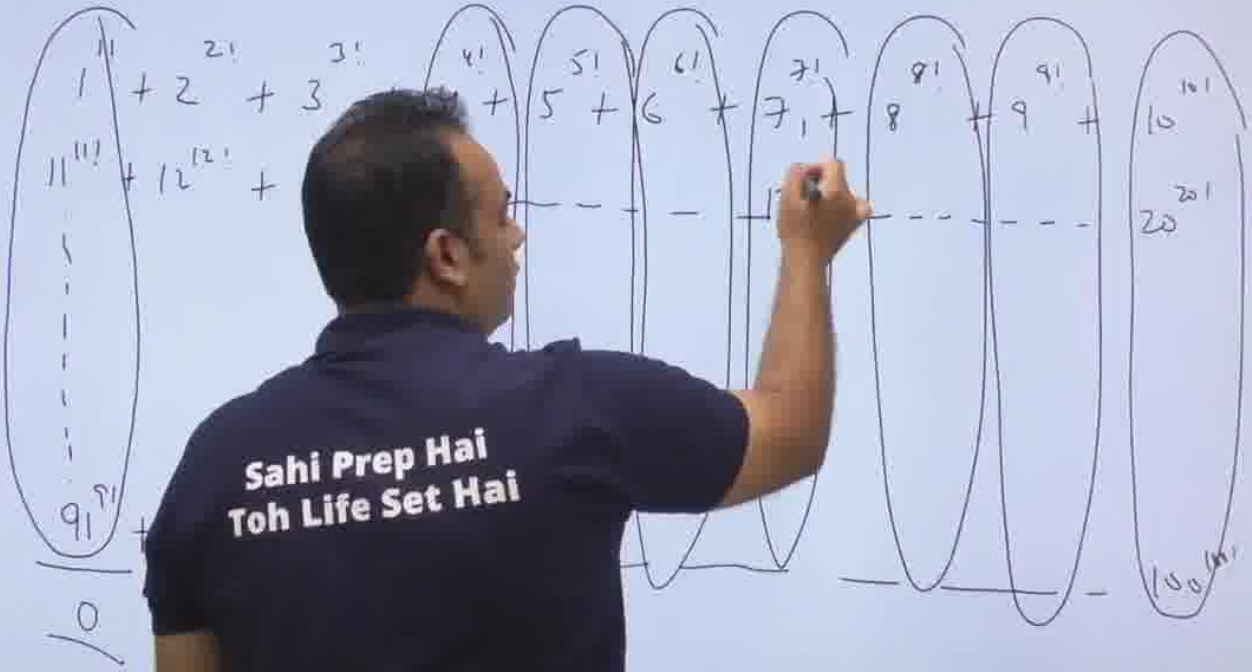
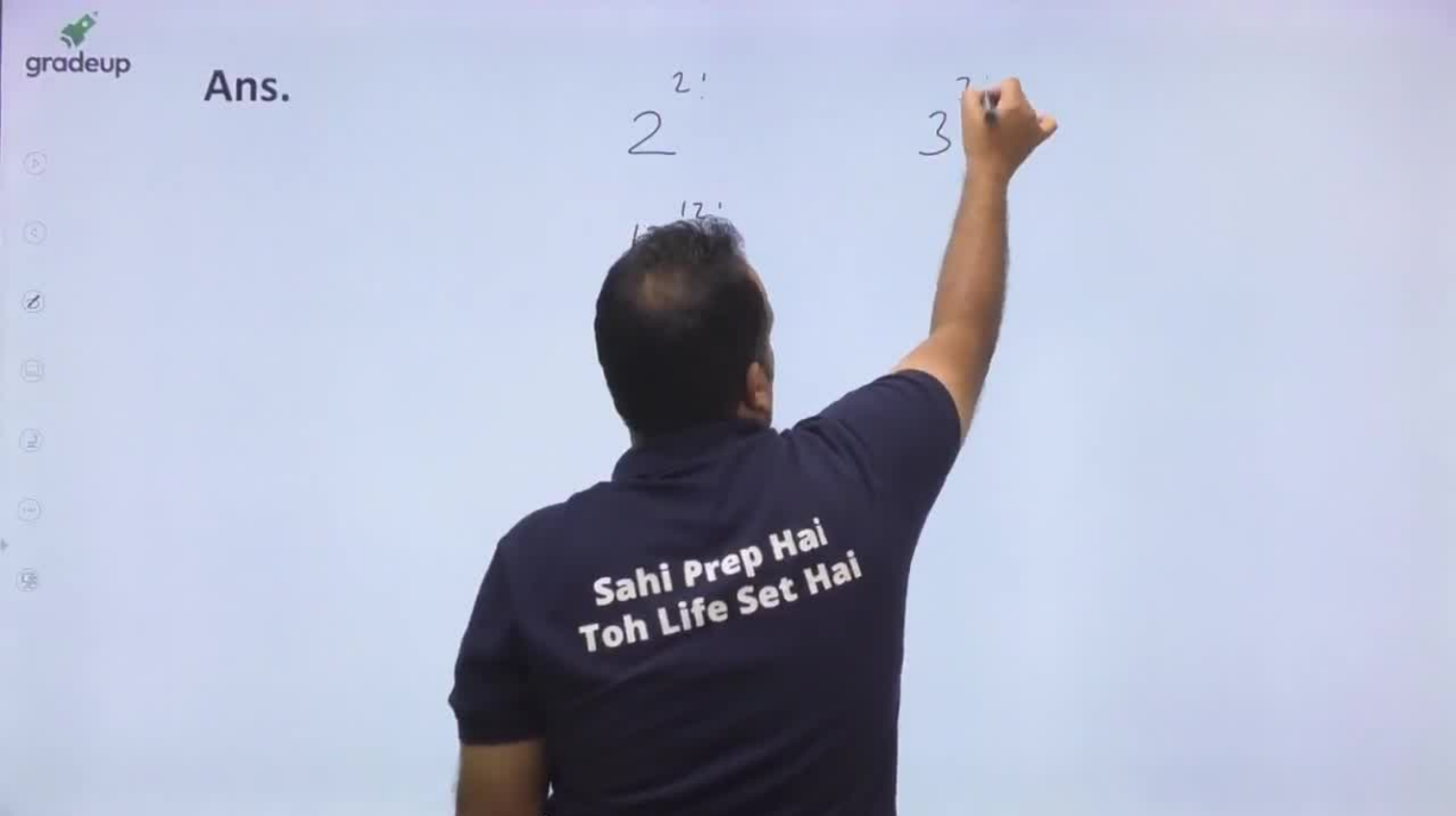
Unit digit → 6

Eg14. $1^{1!} + 2^{2!} + 3^{3!} + \ldots\ldots\ldots 99^{99!} + 100^{100!}$

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Ans.
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Ans.

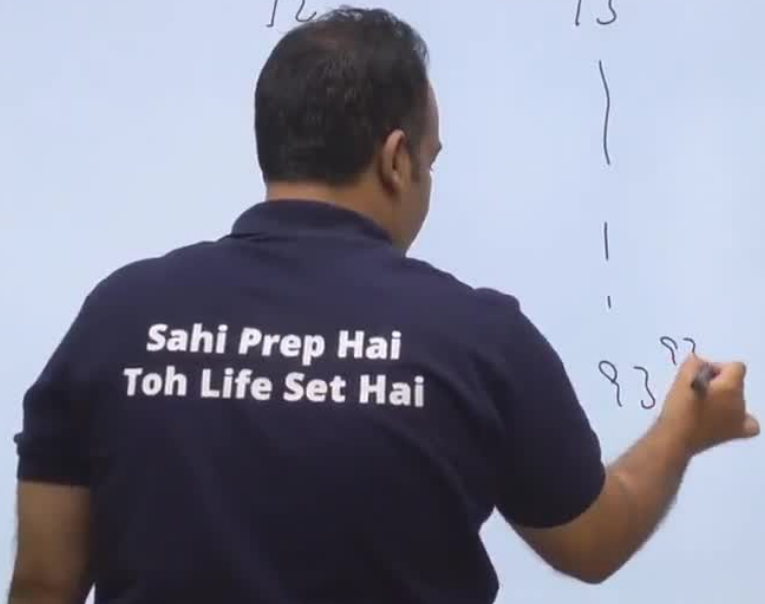
$2^{2!}$ $3^{3!}$

$12^{12!}$ $13^{13!}$

1

1

93^{93}



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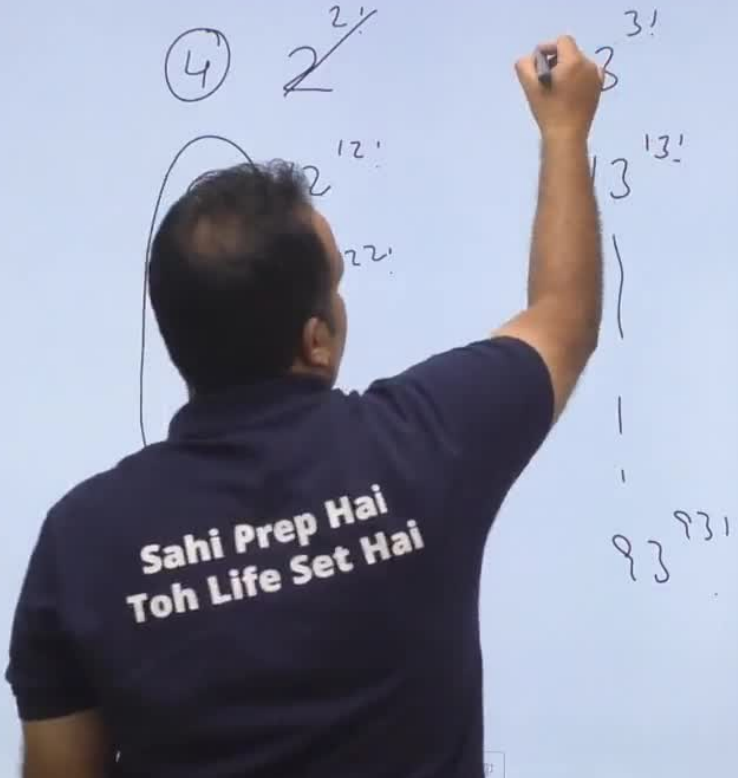
Ans.



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PYQ of SSC

Eg12. If the unit digit of 833×856×43N is N+2, then what is the value of N?

(a) 2
(b) 3
(c) 4
(d) 6

3 · 6 · N ⟶ N+2

(a) 3 · 6 · 2 → 2+2 ✗

(b) 3 · 6 · 3 → 3+2 ✗

(c) 3 · 6 · 4 → 4+2 ✓

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Eg15. $1^1 + 2^2 + 3^3 + 4^4 + \ldots\ldots\ldots\ldots 100^{100}$

HOMEWORK