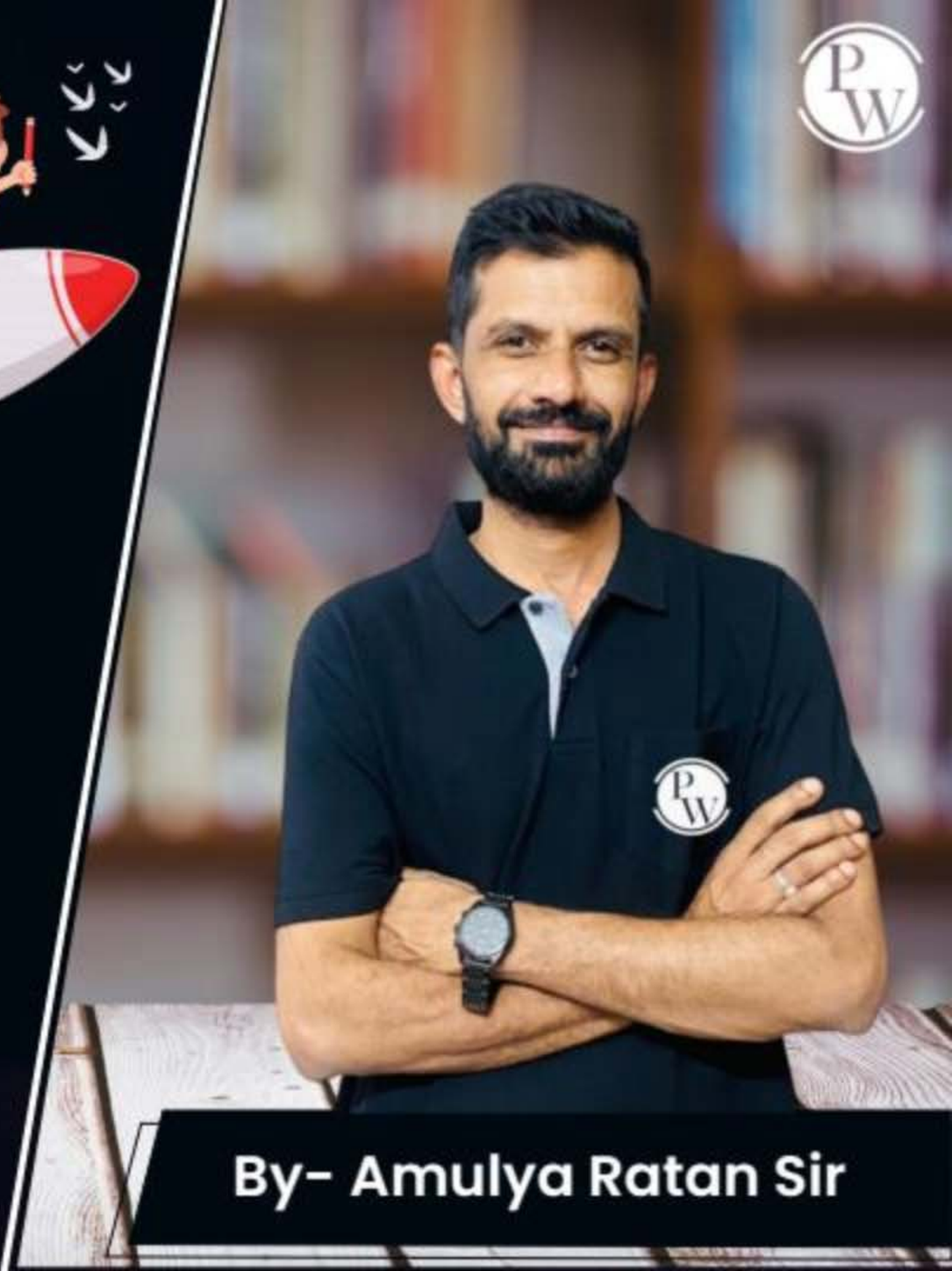
GATE

Data Science & AI

General Aptitude

QUANTITATIVE APTITUDE

Lecture No.- 01



By- Amulya Ratan Sir

Topics to be Covered

Topic-1 Calendar

English

CALENDAR

English

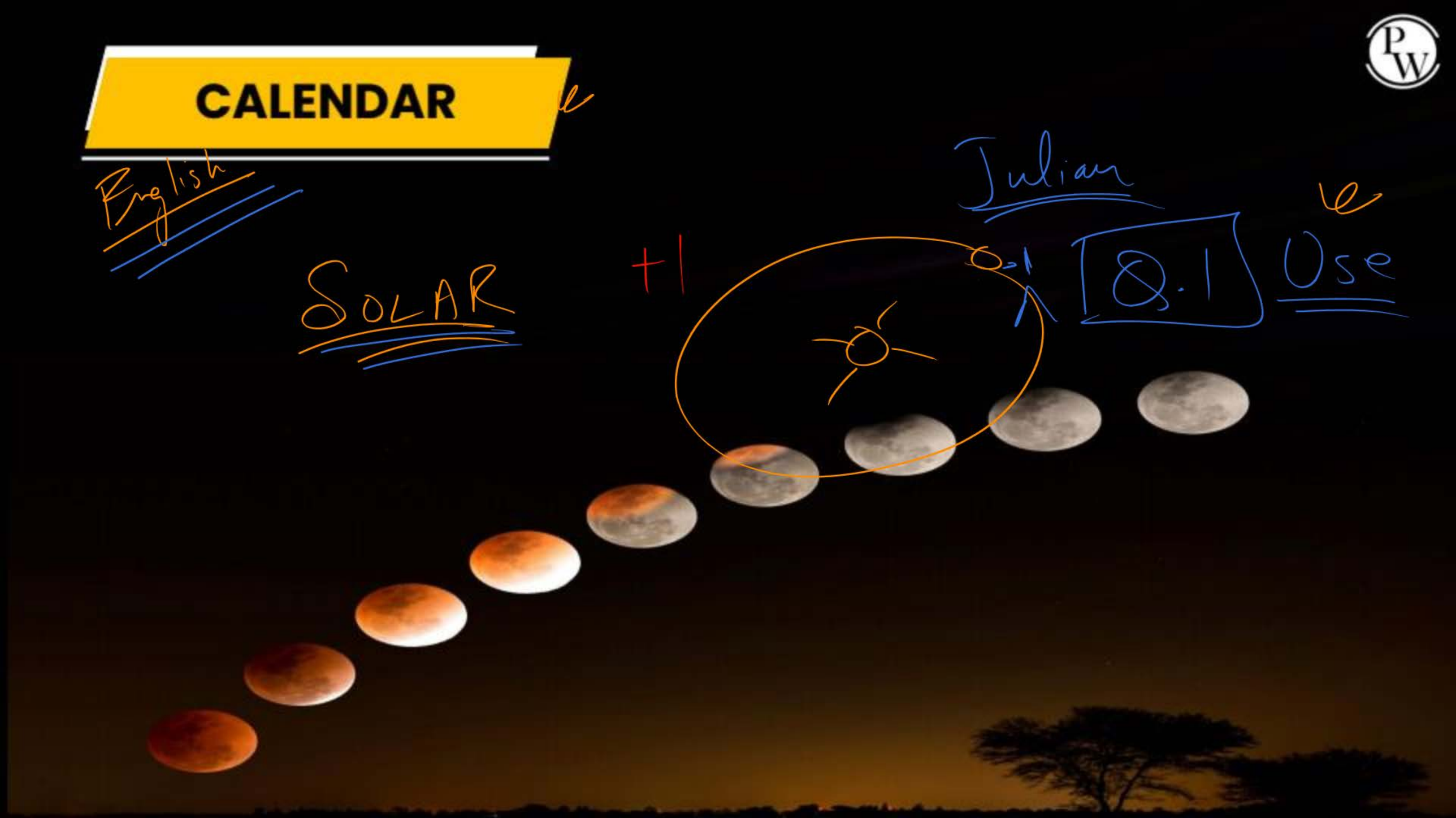
SOLAR

+1

Julian

-1

Use



Basic Questions

B.C.E (B.C.) Before Common Era

Monday

01-01-01

1. Use of CALENDAR? ⇒ Date ⇒ Day?

C.E (A.D) Common Era

only

2. How many months in a year consist of 30 days? 11 months

4 months

i.e April, June, Sep, Nov

3. Which is the first day of a week? ⇒ SUNDAY

00-00-00

4. What is the difference between A.D. & B.C.?

Holy Year — Anno Domini

Before Christ

LEAP YEAR Occurrence

400 ✓

1512

Q- Maximum ⇒ 8 years ✓

29th Feb 1996
29th Feb 2000
29th Feb
1416

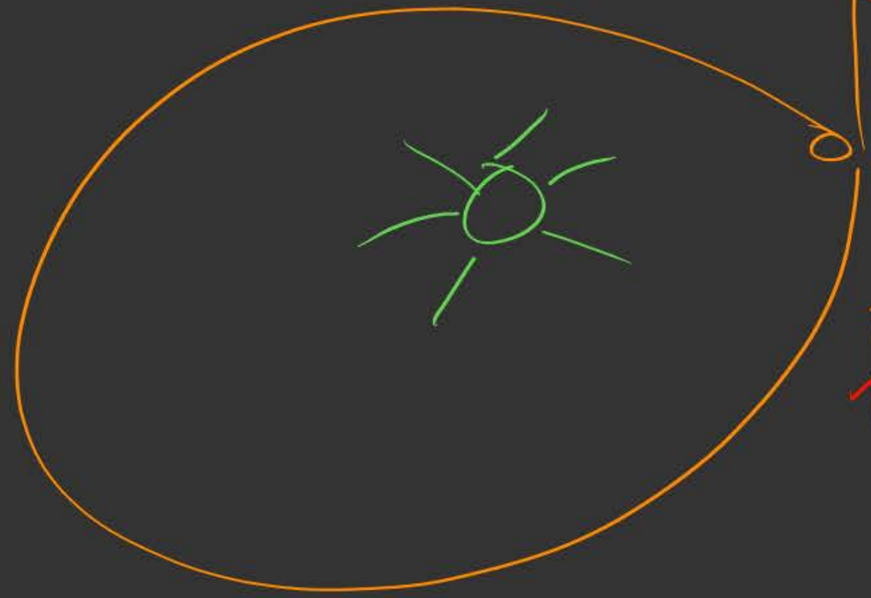
1862 ✗

1891 ✗
29th Feb
1896

29th Feb 1900 ✗
1904

400

365 days 5 hrs 42 min ... secs



365 $\frac{1}{4}$ days

OR

365 days 6 hrs

1 ⇒ 365

2 ⇒ 365

3 ⇒ 365

4 ⇒ 365 + 1 = 366 days

To be Noted:

✓If a year is divisible by 4 then it's a leap year else normal. e.g. 1652, 1212, 1496, 1708, etc. are leap years whereas 1714, 1446, 2006 etc. are normal years.

✓If a century is divisible by 400 then it's a leap year else normal. e.g. 1600, 1200, 2000, 800 etc. are leap years whereas 1000, 1500, 2100 etc. are normal years.

ODD DAYS

As today is 23rd June, 2025. The day is Monday.

✓What was the day on 13th June, 2025?

ODD DAYS

0 - 6

7) C

R = ?

- ✓All those number of days which can't be kept in a group of a week.

OR

- ✓ When given number of days is divided by 7, the remainder is called as odd days.

Normal Year & Leap Year

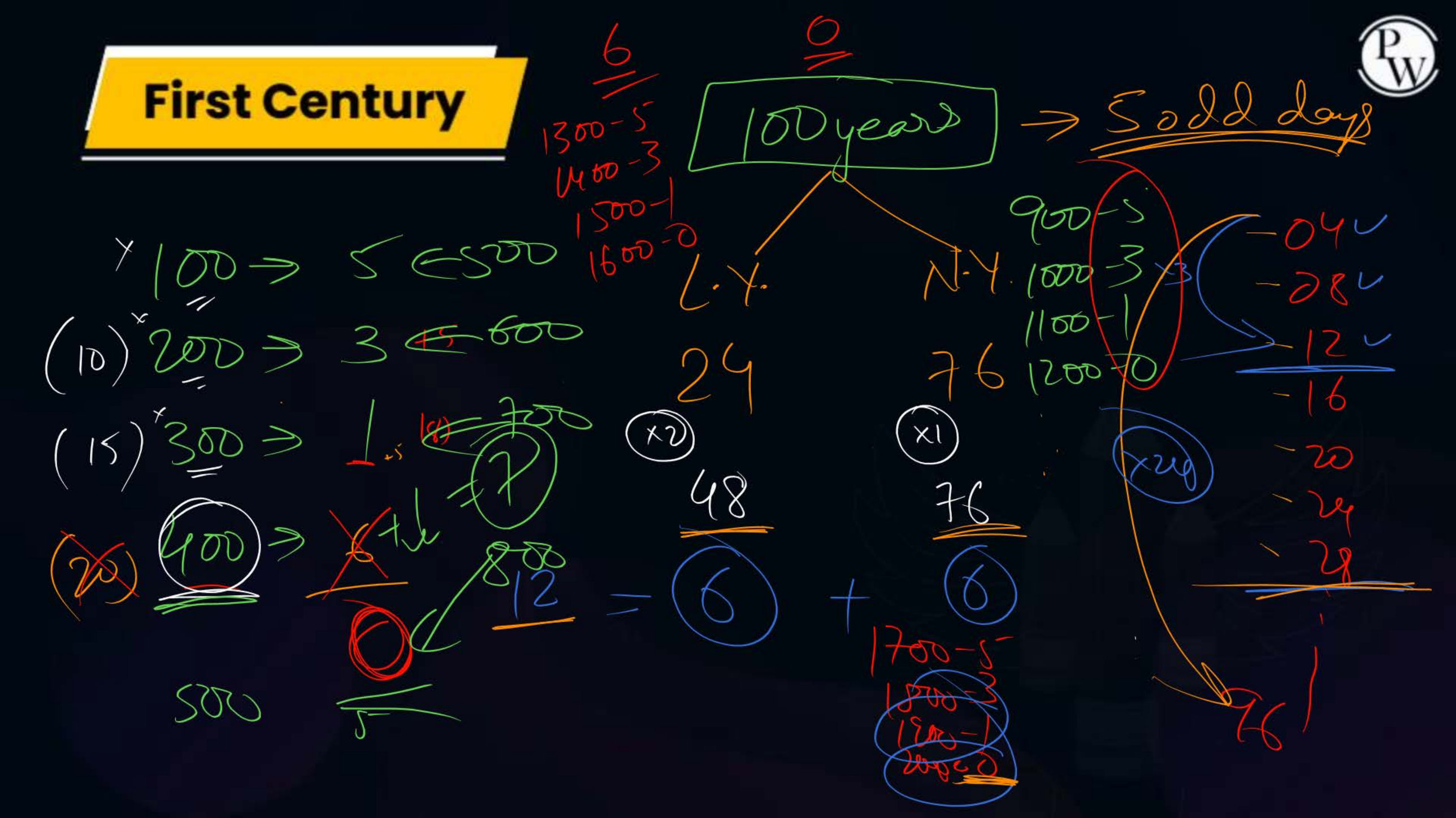
52 weeks

100 yrs

N.Y. ⇒ 365 → 1 odd days

L.Y. ⇒ 366 → 2 odd days

First Century



Odd Days in Centuries

Wednesday → 3 odd days

6th Oct, 2504

2000 ⇒ 0

+

3 ⇒ 3

2003 ⇒ 3 + 0 = 3

(31) J ⇒ 3 A ⇒ 2 J ⇒ 3 O ⇒ 6

(21) F ⇒ 1 M ⇒ 3 A ⇒ 3

(31) M ⇒ 3 J ⇒ 2 J ⇒ 2 + = 0

0 - Sun

1 - Mon

2 - Tue

3 - Wed

4 - Thu

5 - Fri

6 - Sat

Questionnaire:

1. Tuesday
2. Friday
3. Monday
4. None

3rd June, 1947 → 2 odd days

1946 → 2 + 0 = 2

04

×11

44

1900 → 1
46 → 1

L.Y N.Y

11 35

1 22 35 0

J → ~~3~~
F → 0
M → ~~3~~
A → ~~2~~ ~~1~~
M → ~~3~~ → 0
J → ~~3~~

Questionnaire:

FRIDAY → Odd day

15th Aug, 1947

① Tuesday

② Wednesday

③ Friday

④ None

1946 → 2 + 3 = 5

1900 → 1

46 → 1

J-3
F-0
M-3
A-2

M-3
J-2
J-3
A-1

Questionnaire:

#Q. Guru Nanak was born on 15th April, 1469. What was the week day?

4 odd days → Thursday

1468 → 4 + 0 = 4

1400 ⇒ 3

68 ⇒ 1

L.Y 17 → 34 → 6

N.Y 51 → 51 → 2

6 + 2 = 8

J → 3

F → 0

M → 3

A → 1

0

04

×17

68

Fact:

Georgian => +1

April 15, 1469: Day of the Week

April 15, 1469 was the 105th day of the year 1469 in the Gregorian calendar. There were 260 days remaining until the end of the year. The day of the week was *Thursday*.

The day of the week for April 15, 1469 under the old Julian calendar was Saturday. Did you notice the difference with the Gregorian calendar?

Questionnaire:

Wednesday

19th Feb, 2003

2000 → 0

2 → +2

2

2002 → 2 + 1 = 3

J-3

F → 5

8

(1)

Friday

30th July, 1886 → 5 odd days

J-~~2~~

J-~~2~~

1885 → 4

J-~~3~~

F → 0

M-~~3~~

A-~~2~~

M-~~3~~

1

+1 = 5

1800 → 3

85 → 1

L.Y

21

42

0

N.Y.

64

64

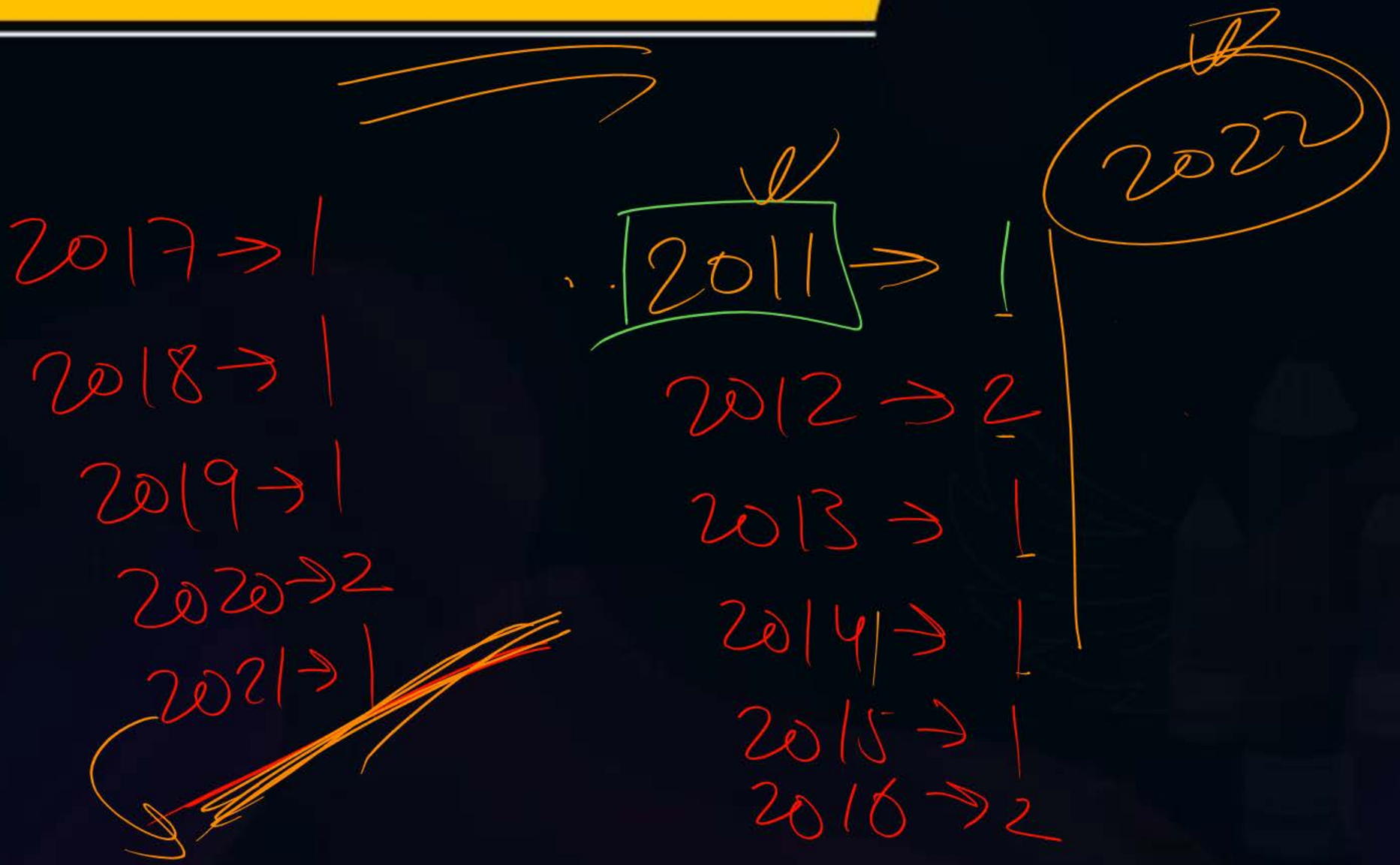
1

04

×21

84

CALENDAR REPETITION



[MCQ]

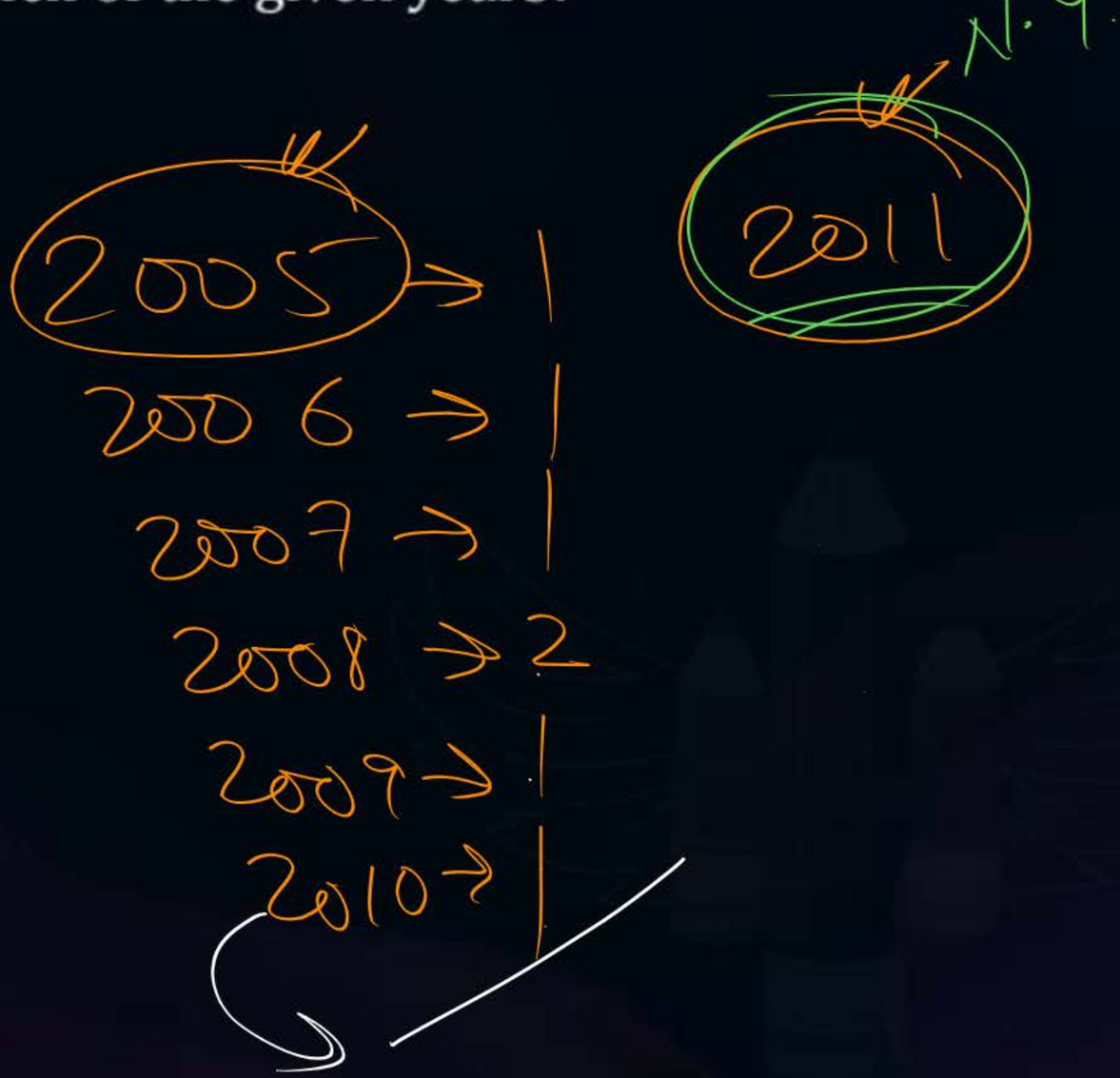
#Q. 2005 calendar is same as which of the given years?

A 2009

B 2016

C 2011

D 2015



[MCQ]

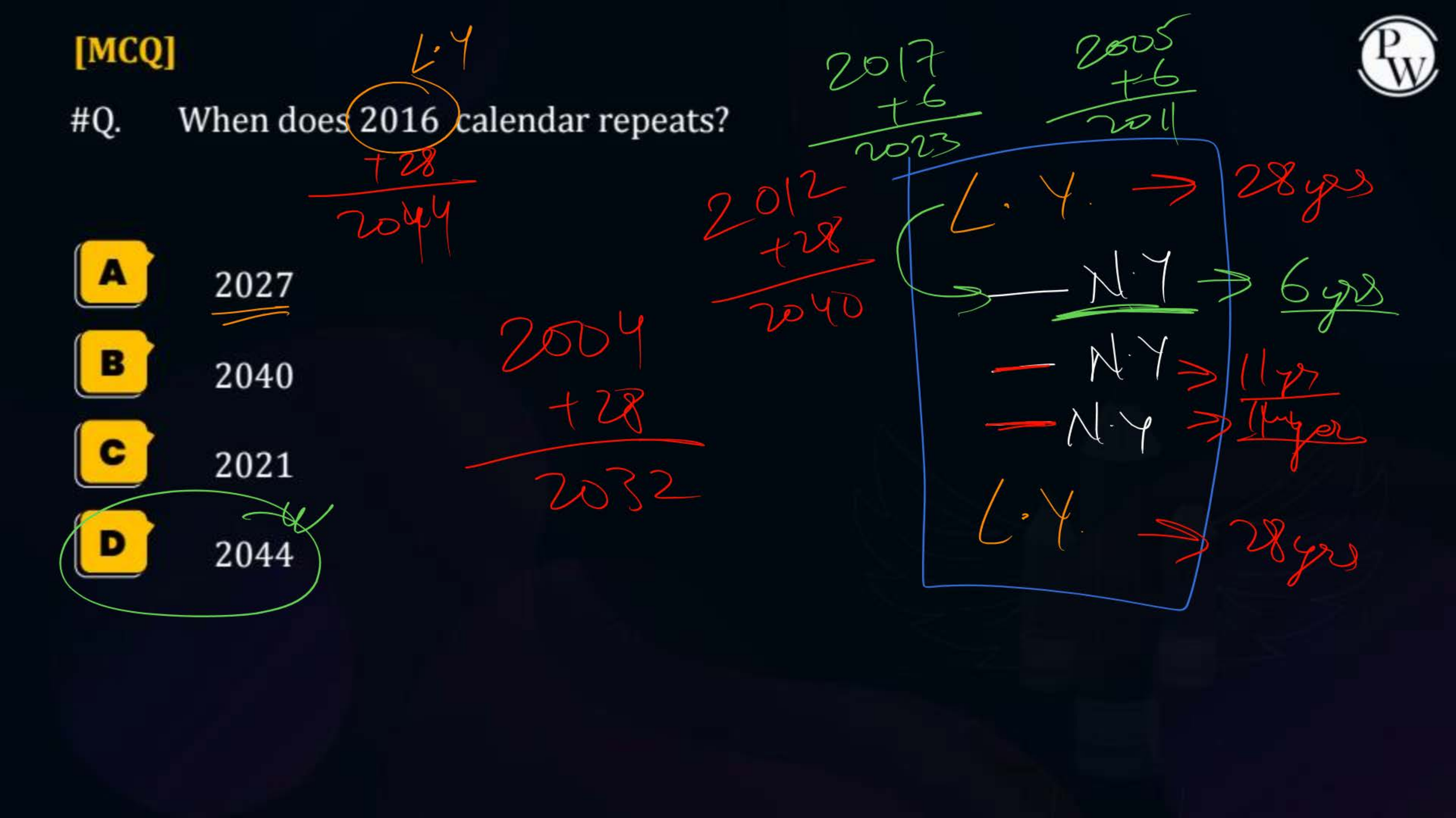
#Q. When does 2016 calendar repeats?

A 2027

B 2040

C 2021

D 2044



[MCQ]

#Q. The GATE 2020 result was declared on March 16, 2020. What day of the week was it?

Assignment

A. Saturday

B. Sunday

C. Monday

D. None

Conditional Question

Q. If a year consist of 900 days and every week consist of 6 days, then how many odd days will be there in that year?

6) 900 (150
30
30
00
0

Conditional Question

Q The last day of a century CANNOT be which day?

Tue ✗ Thu ✗ Sat ✗

100 → 5 Friday ✓
200 → 3 Wed ✓
300 → 1 Mon ✓
400 → 0 Sun ✓

[MCQ]

#Q. Mahatma Gandhi was born on 2nd October 1869. What was the week Day?

Assignment

A. Monday

B. Thursday

C. Tuesday

D. Saturday

[MCQ]

#Q. The day of the March 16th of any year is the same day of the week as the corresponding date in which month of the same year?

Assignment

A July

B November

C April

D September

[MCQ]

#Q. If January 1st, 1992 was a Wednesday. What day of the week was January 1st, 2003?

Assignment

A Sunday

B Wednesday

C Thursday

D Friday

2 mins Summary

Topic Calendar

THANK - YOU