
Calender

Calenders:

Odd-days:

-> The no. of extra days that are present when divisible by 7.

Jan - 3 (31)	July - 3 (31)
Feb - 0 (NLP)/1 (LP)	Aug - 3 (31)
Mar - 3 (31)	Sep - 2 (30)
Apr - 2 (30)	Oct - 3 (31)
May - 3 (31)	Nov - 2 (30)
June - 2 (30)	Dec - 3 (31)

1) Non-Leap year $= \frac{365}{7} \overset{52}{\underset{1}{}} = 1$

2) Leap year $= \frac{366}{7} \overset{52}{\underset{1}{}} = 2$ ← (extra)

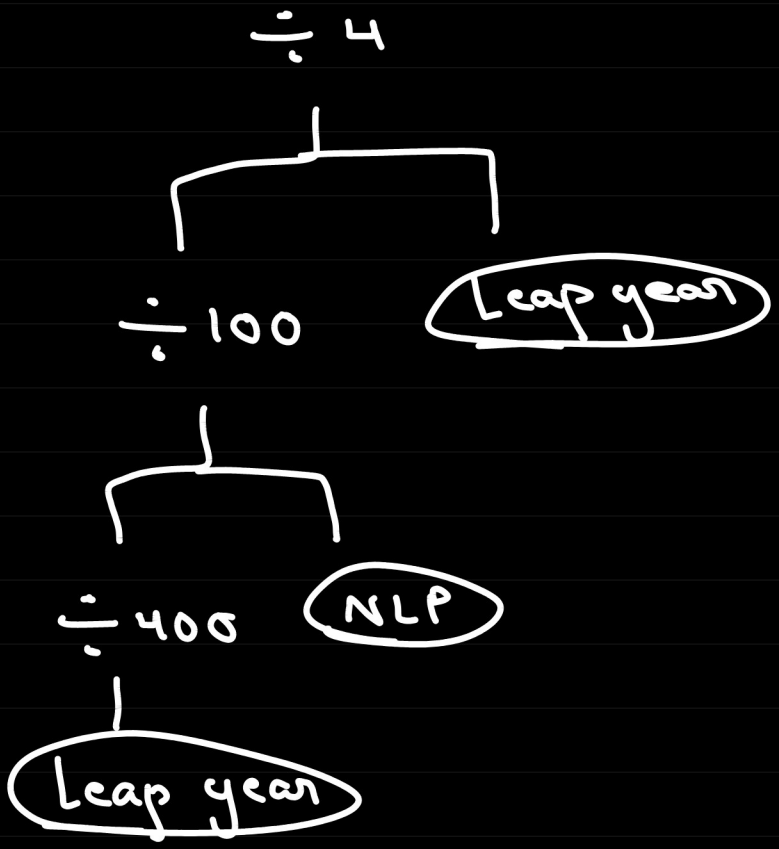
odd days

Leap year:-

1 Earth year = 365 Days 5hrs 48 min 48 sec

6hr x 4 = 24hrs = 1day

Rules:



→ For every 100 years,

odd days = 76 nlp + 24 lp

= (76 × 1) + (24 × 2)

= 76 + 48

= 124 / 7 (÷ by 7)

+400 = 5 odd days.

→ 100 years = 5 odd days = 500, 900, 1300 - -

→ 200 years = 3 odd days = 600, 1000, 1400 - -

→ 300 years = 1 odd days = 700, 1100, 1500 - -

→ 400 years = 0 odd days = 800, 1200, 1600 - -

(* For 200 years we do (5 (100y) + 5 (100y)) % 7 = 3 odd days)

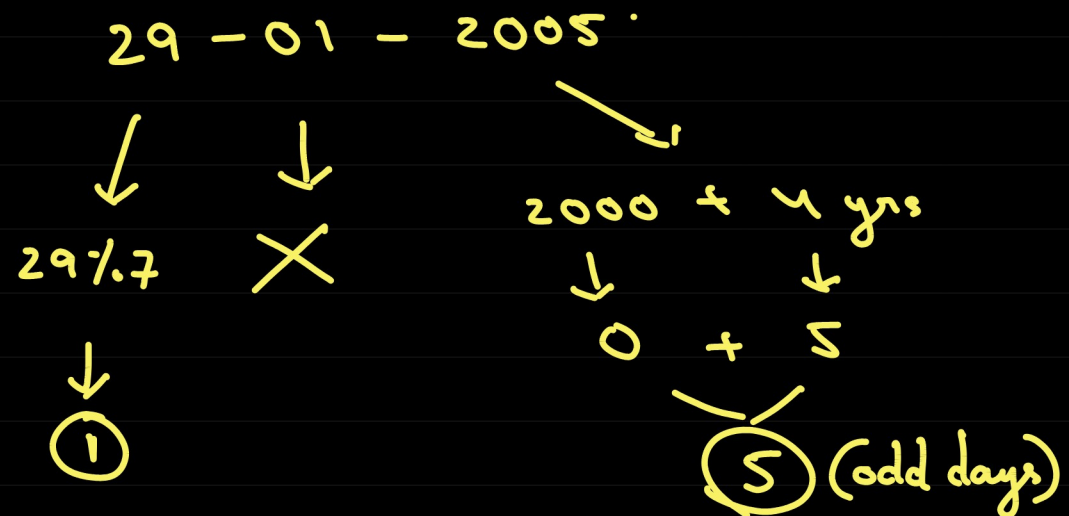
⇒ Days of week ⟷ odd days

Sunday	— 0	odd days
Monday	— 1	
Tuesday	— 2	
Wednesday	— 3	
Thursday	— 4	
Friday	— 5	
Saturday	— 6	

☆ Model 1:

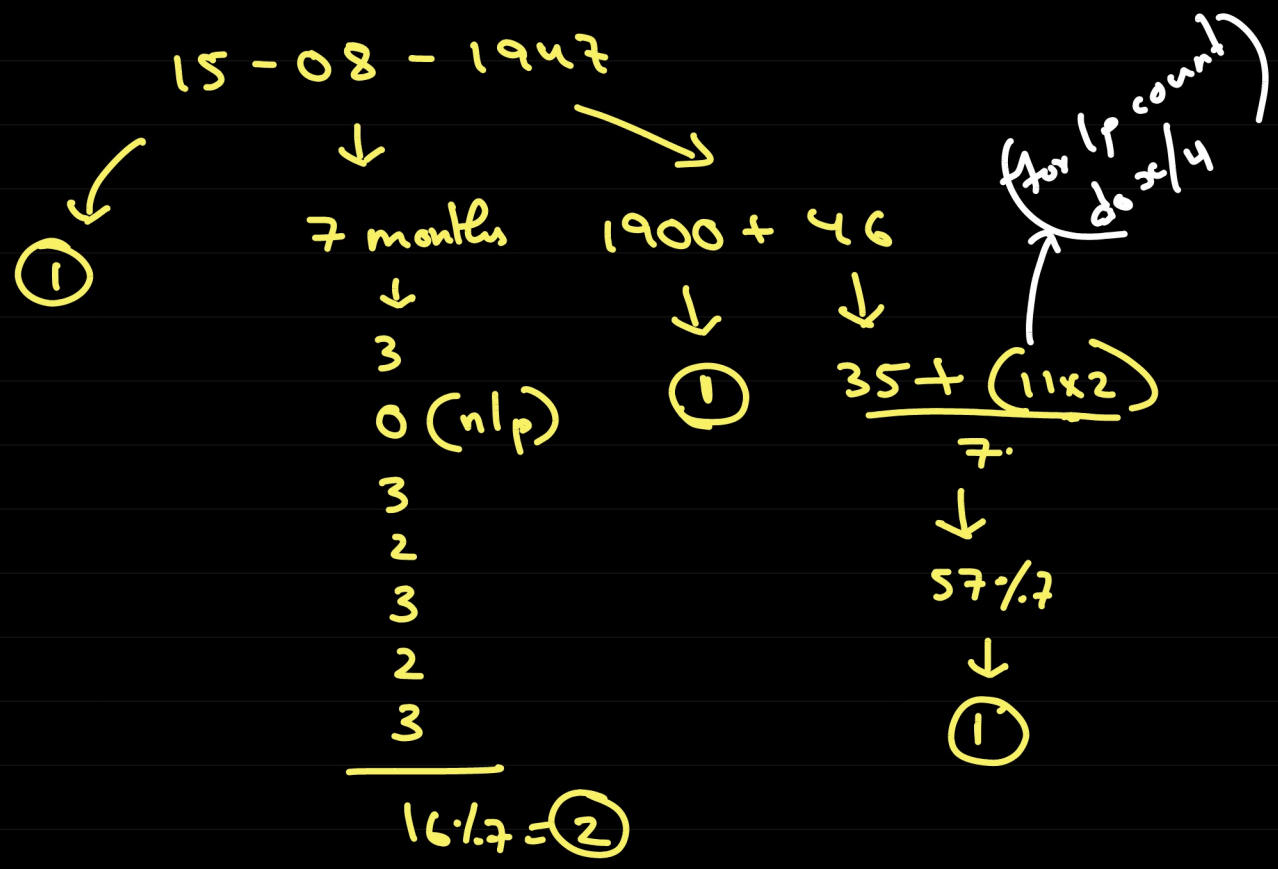
Day on a Particular Dak:

Q) 29-01-2005.



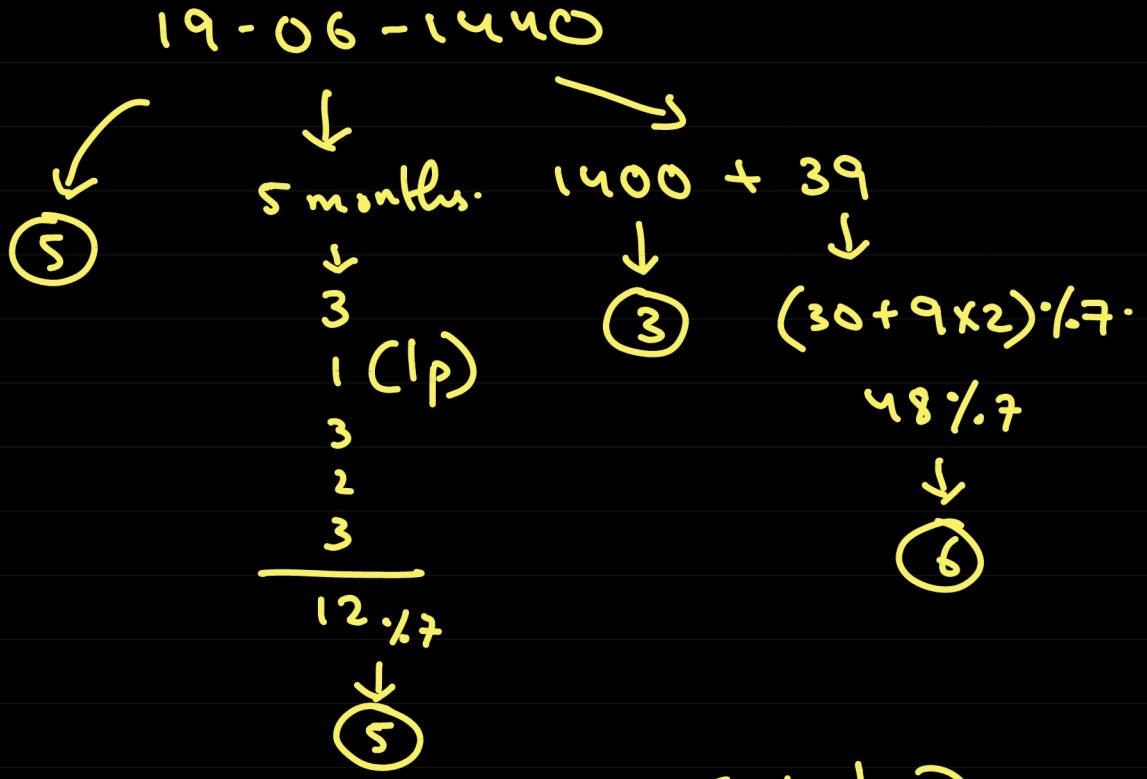
⇒ 1+5 ⇒ 6 (Saturday)

Q) 15-08-1947.



=> 1+2+1+1 = 5 (Friday)

Q) 19-06-1440



=> 5+5+3+6 => 19%7 = 5 (Friday)

2 Imp things to rembers when doing ↑ questions.

1) when year is given as 1440 calc odd days for 1439 years same goes for months
2) Check whether given year is lp year or not to keep 0 odd days or 1 odd days for feb month.

=> Last days of Century years:

100 yr's – 5 (Fri)
200 yr's – 3 (Wed)
300 yr's – 1 (Mon)
400 yr's – 0 (Sun)

→ Tue, Thu, Sat are not last days of century years.

=> Same Calender year:

lp $\xrightarrow{+28}$
lp+1 $\xrightarrow{+6}$
lp+2 $\xrightarrow{+11}$
lp+3 $\xrightarrow{+11}$

} Only works when there are consistent leap years in btw.

Tutti 2