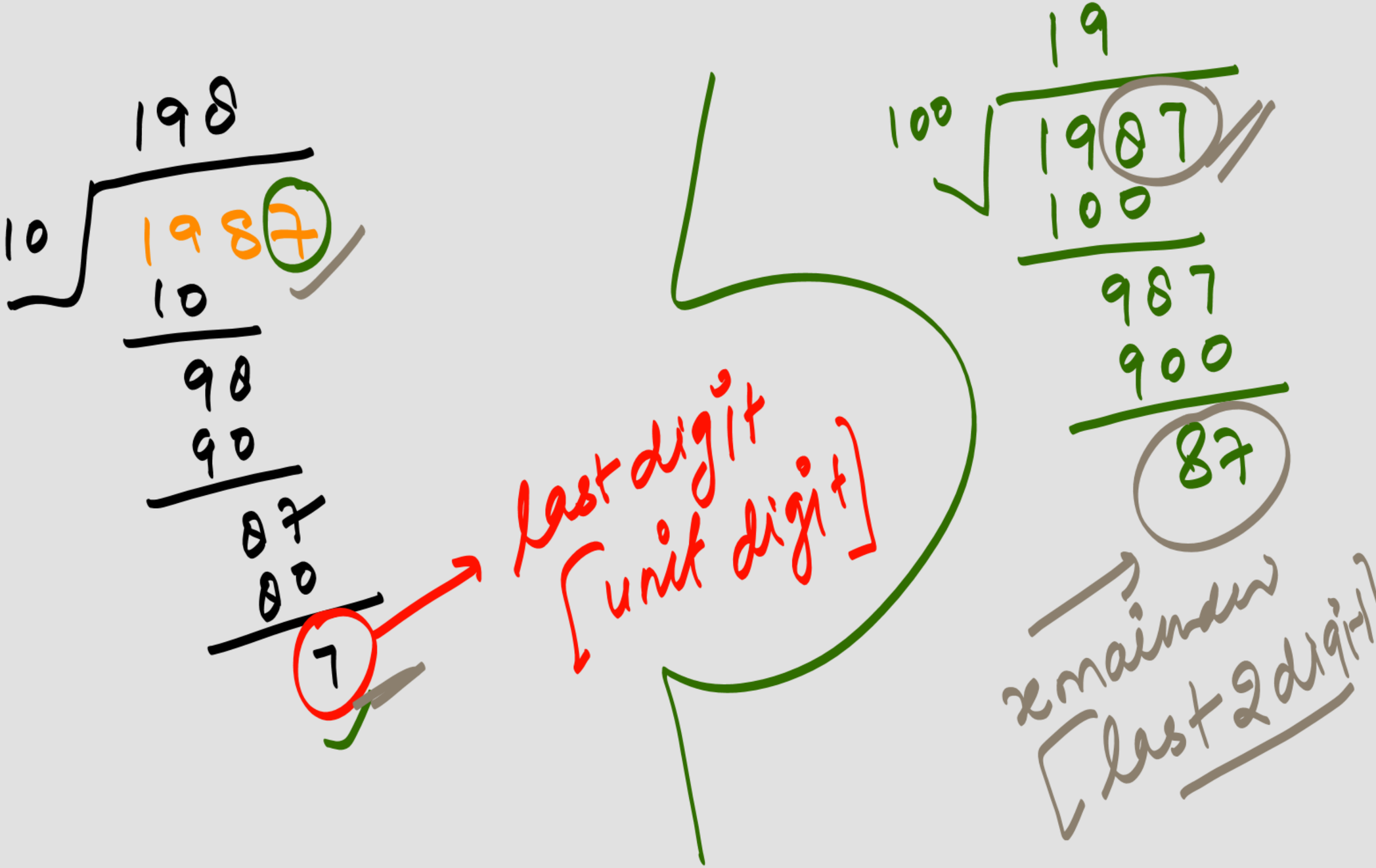
NUMBER SYSTEM
(Remainder Theorem)

NO. OF QUESTIONS	MAXIMUM DAYS	CLASS DURATION
10 Questions	1 DAY	2 HOURS


198
10 | 1987
10
98
90
87
80
7
last digit
[unit digit]
19
100 | 1987
100
987
900
87
remainder
[last 2 digit]

Note :- If divided by 10

R → unit digit

If divided by 100

R → last 2 digit

and soon.

CLASS EXERCISE

Find the last two digit of the following Expressions :

I) find last 2 digit of- 1298 x 97 x 102 x 21298 . (SSC CGL 2016) Ans 76

II) Find the last 2 digit of- 98 x 1797 x 103 x 101 . (SSC CHSL 2016) Ans 18

III) The digit of Hundredth Place of 17! ? (CGL Mains 2016) Ans 0

IV) Find the last 2 digit of the expression .

$1! + 2! + 3! + 4! + \cdots \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots + 100!$ Ans 13

(SSC CGL Mains 2017)

$-2^{\checkmark}$ $-3^{\checkmark}$ $+2^{\checkmark}$ $-2^{\checkmark}$

$1298 \times 97 \times 102 \times 21298$

100

$R = -24^{\checkmark}$

or $+76^{\checkmark}$

CLASS EXERCISE

Find the last two digit of the following Expressions :

I) find last 2 digit of- 1298 x 97 x 102 x 21298 . (SSC CGL 2016) Ans 76

II) Find the last 2 digit of- 98 x 1797 x 103 x 101 . (SSC CHSL 2016) Ans 18

III) The digit of Hundredth Place of 17! ? (CGL Mains 2016) Ans 0

IV) Find the last 2 digit of the expression .

$1! + 2! + 3! + 4! + \cdots\ldots\ldots\ldots\ldots\ldots\ldots\ldots + 100!$ Ans 13

(SSC CGL Mains 2017)

(-2) (-3) (+3) (+1)

$$\frac{98 \times 1797 \times 103 \times 101}{100}$$

R = +10

CLASS EXERCISE

Find the last two digit of the following Expressions :

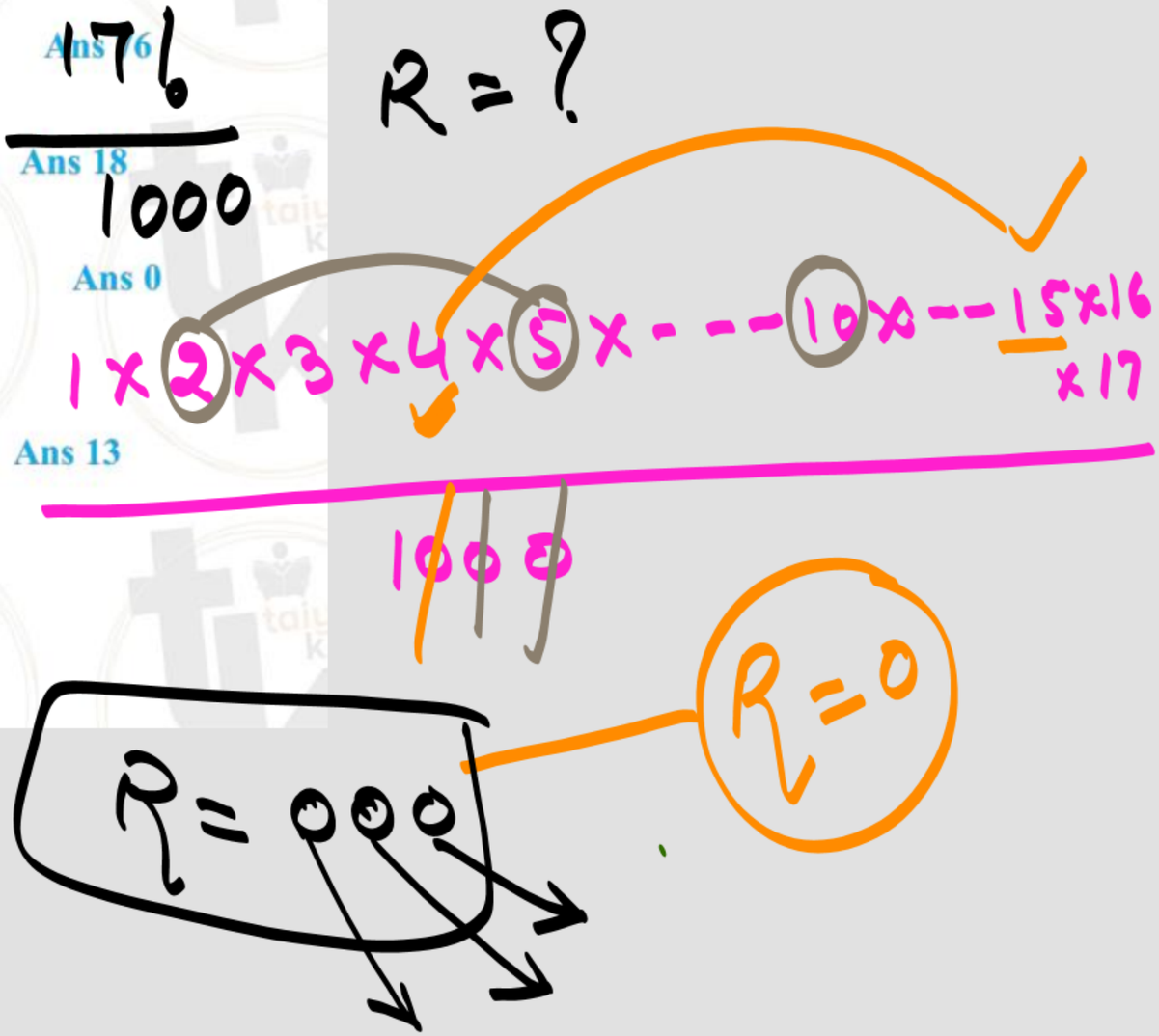
I) find last 2 digit of- 1298 x 97 x 102 x 21298 . (SSC CGL 2016) Ans 76

II) Find the last 2 digit of- 98 x 1797 x 103 x 101 . (SSC CHSL 2016) Ans 18

III) The digit of Hundredth Place of 17! ? (CGL Mains 2016) Ans 0

IV) Find the last 2 digit of the expression

$1! + 2! + 3! + 4! + \cdots \ldots\ldots\ldots\ldots\ldots\ldots +100!$ (SSC CGL Mains 2017) Ans 13



CLASS EXERCISE

Find the last two digit of the following Expressions :

I) find last 2 digit of- 1298 x 97 x 102 x 21298 . (SSC CGL 2016) Ans 76

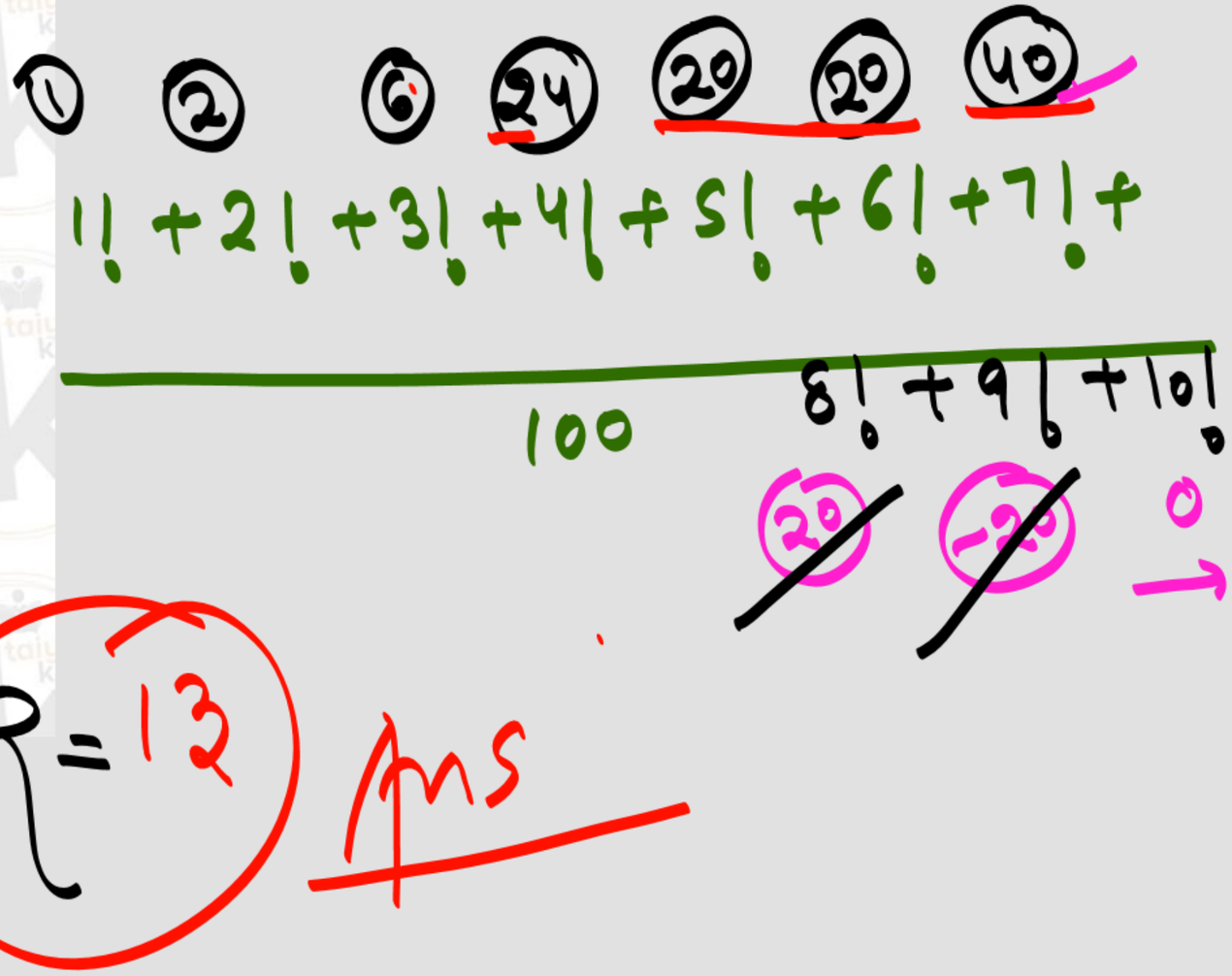
II) Find the last 2 digit of- 98 x 1797 x 103 x 101 . (SSC CHSL 2016) Ans 18

III) The digit of Hundredth Place of 17! ? (CGL Mains 2016) Ans 0

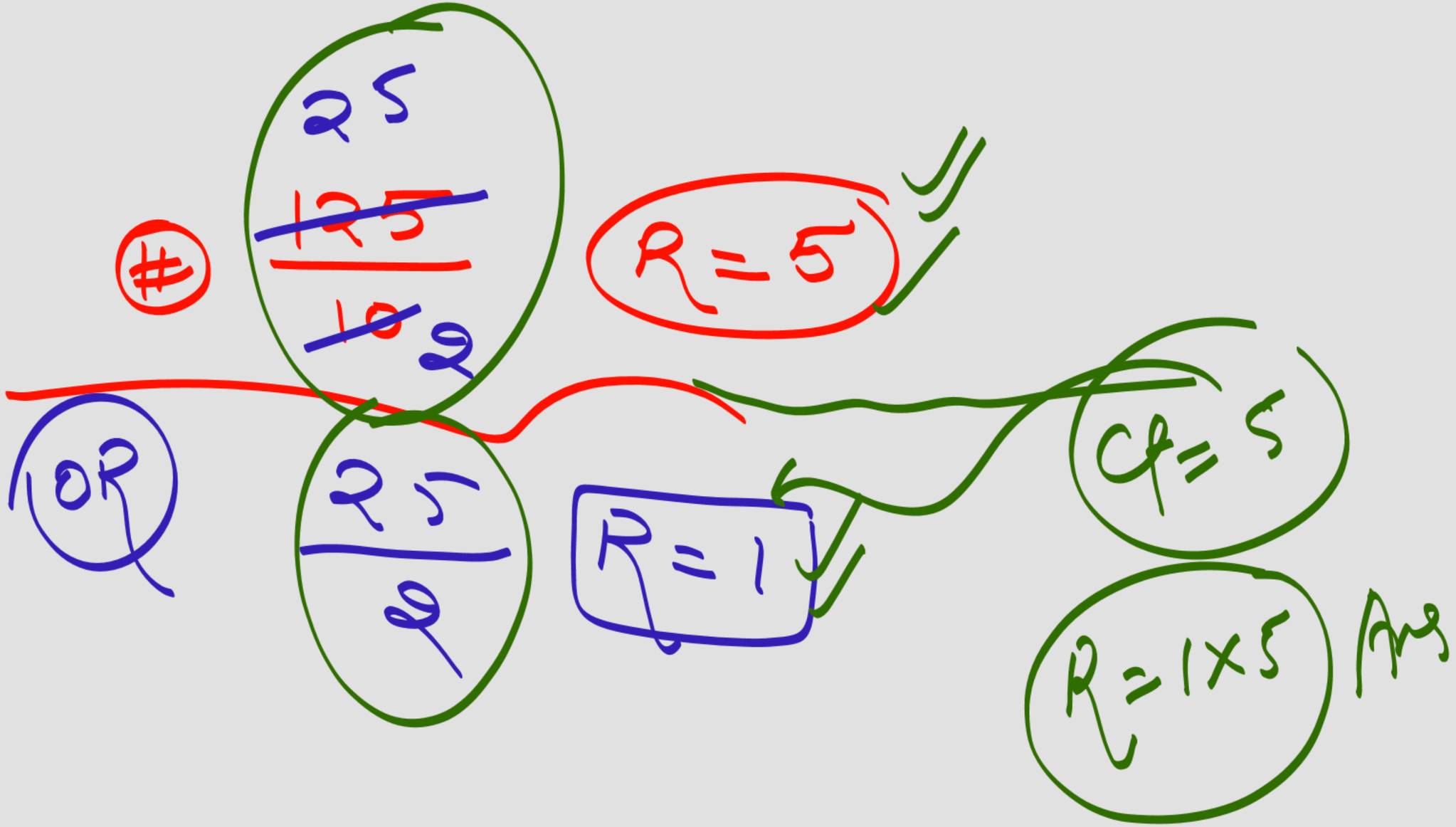
IV) Find the last 2 digit of the expression .

$1! + 2! + 3! + 4! + \cdots \ldots\ldots\ldots\ldots\ldots\ldots\ldots + 100!$ Ans 13

(SSC CGL Mains 2017)



Concept of Common Factor Elimination :


25
5
2
#
R = 5
OR
2 1
1
R = 1
Q = 5
R = 1 × 5
Ans

Note:- ® निकालते समय
cf से eliminate नहीं
करते But eliminate
करना जरूरी होता है तो cf
से छुड़ाते multiple
करके Original ® निकाला जा
सकता है

CLASS EXERCISE

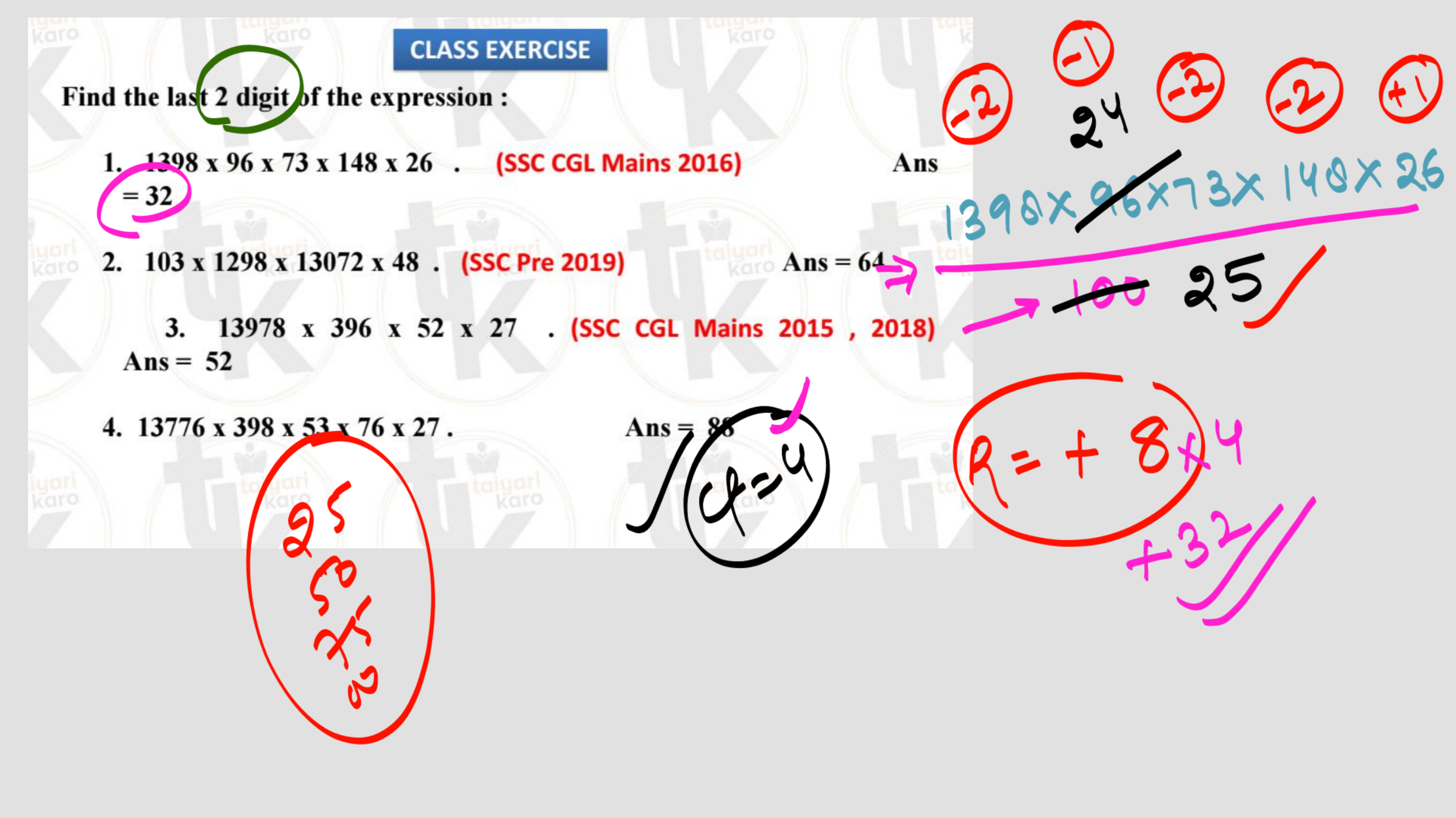
Find the last 2 digit of the expression :

1. 1398 x 96 x 73 x 148 x 26 . (SSC CGL Mains 2016) Ans = 32

2. 103 x 1298 x 13072 x 48 . (SSC Pre 2019) Ans = 64

3. 13978 x 396 x 52 x 27 . (SSC CGL Mains 2015 , 2018) Ans = 52

4. 13776 x 398 x 53 x 76 x 27 . Ans = 88



CLASS EXERCISE

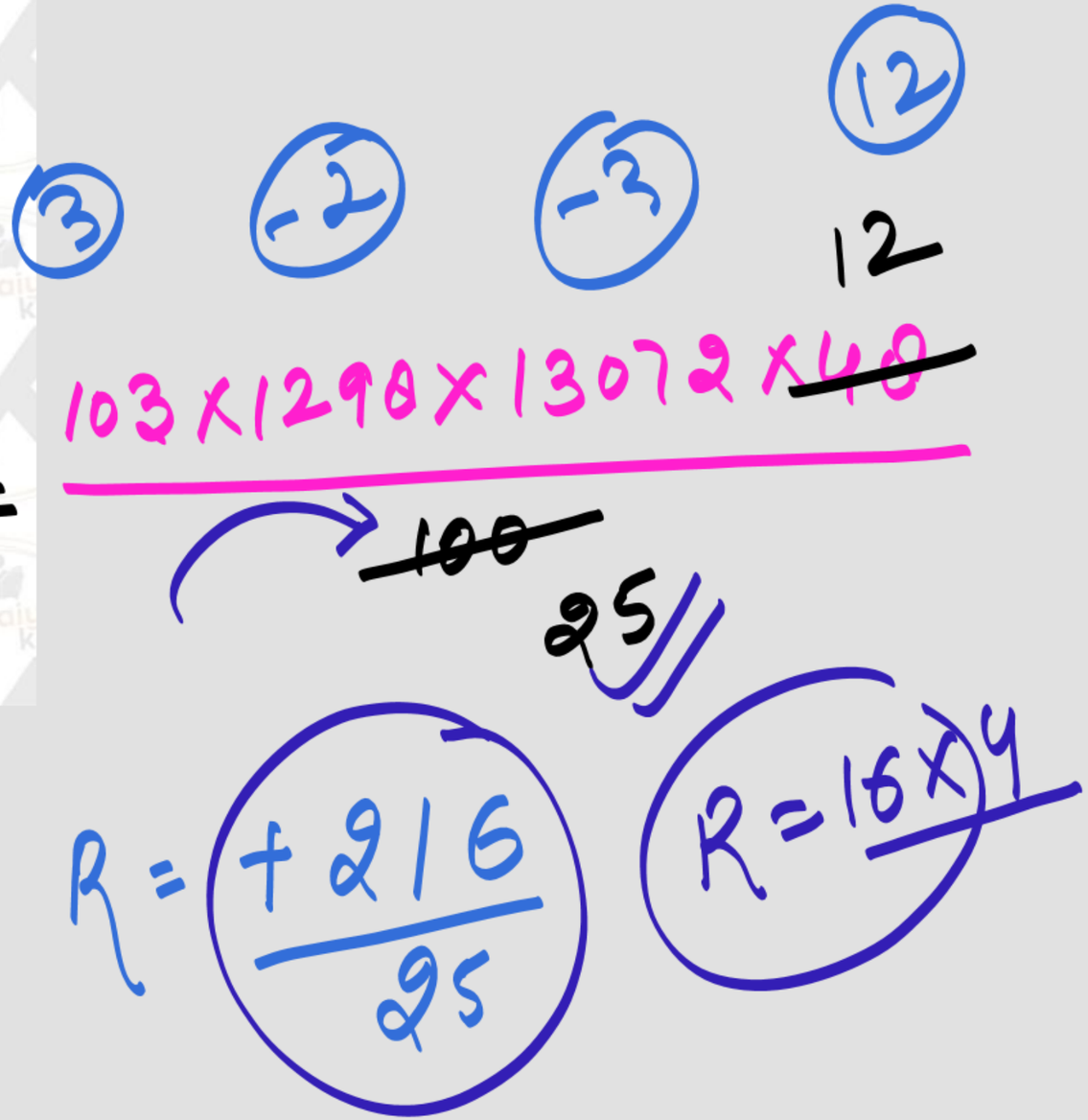
Find the last 2 digit of the expression :

1. 1398 x 96 x 73 x 148 x 26 . (SSC CGL Mains 2016) Ans = 32

2. 103 x 1298 x 13072 x 48 . (SSC Pre 2019) Ans = 64

3. 13978 x 396 x 52 x 27 . (SSC CGL Mains 2015 , 2018) Ans = 52

4. 13776 x 398 x 53 x 76 x 27 . Ans = 88



CLASS EXERCISE

5. 12998 x 35 x 24 x 23 . (SSC CGL Mains 2018) Ans = 60

6. 39 x 55 x 57 x 24 x 13872 x 9871 . (SSC CGL Mains 2019) Ans = 20