ALL BRANCH (English)

General Aptitude

Quantitative Aptitude

DPP 06 Discussion Notes

Number System

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MCQ

What will be the remainder if 3^{193} is divided by 8?

(3)

$3^1 = 3 \div 8 \Rightarrow R = 3$

$3^2 = 9 \div 8 \Rightarrow R = 1$

$3^3 = 27 \div 8 \Rightarrow R = 3$

$3^4 = 81 \div 8 \Rightarrow R = 1$

A 6

B 1

C 5

D 3

MCQ

What is the smallest number that when subtracted from 63407 makes it exactly divisible by 9?

63407

6+3+4+0+7 = 20 → (2)

18

A 4

B 3

C 2

D 1

MCQ

Find the remainder when 3^{51} is divided by 5.

A 2

B 1

C 4

D 3

$$4\overline{)51}\,(12$$
$$\underline{48}$$
$$3$$

$3^1 = 3 \div 5 \Rightarrow R = 3$ — $R = 1$

$3^2 = 9 \div 5 \Rightarrow R = 4$ — $R = 2$

$3^3 = 27 \div 5 \rightarrow R = 2$ — $R = 3$

$3^4 = 81 \div 5 \rightarrow R = 1$ — $R = 0$

$3^5 = 343 \div 5 \Rightarrow R = 3$

MCQ

If the number 653ab is divisible by 90, then (a + b) = ?

A 13

B 4

C 22

D 8

$a+b=4+0$

$=4$

$90 = 9 \times 10$

$b = 0$ ($\because$ divisible by 10)

$6+5+3+a+0 = 14$

4

$+4$

18

$a = 4$

MCQ

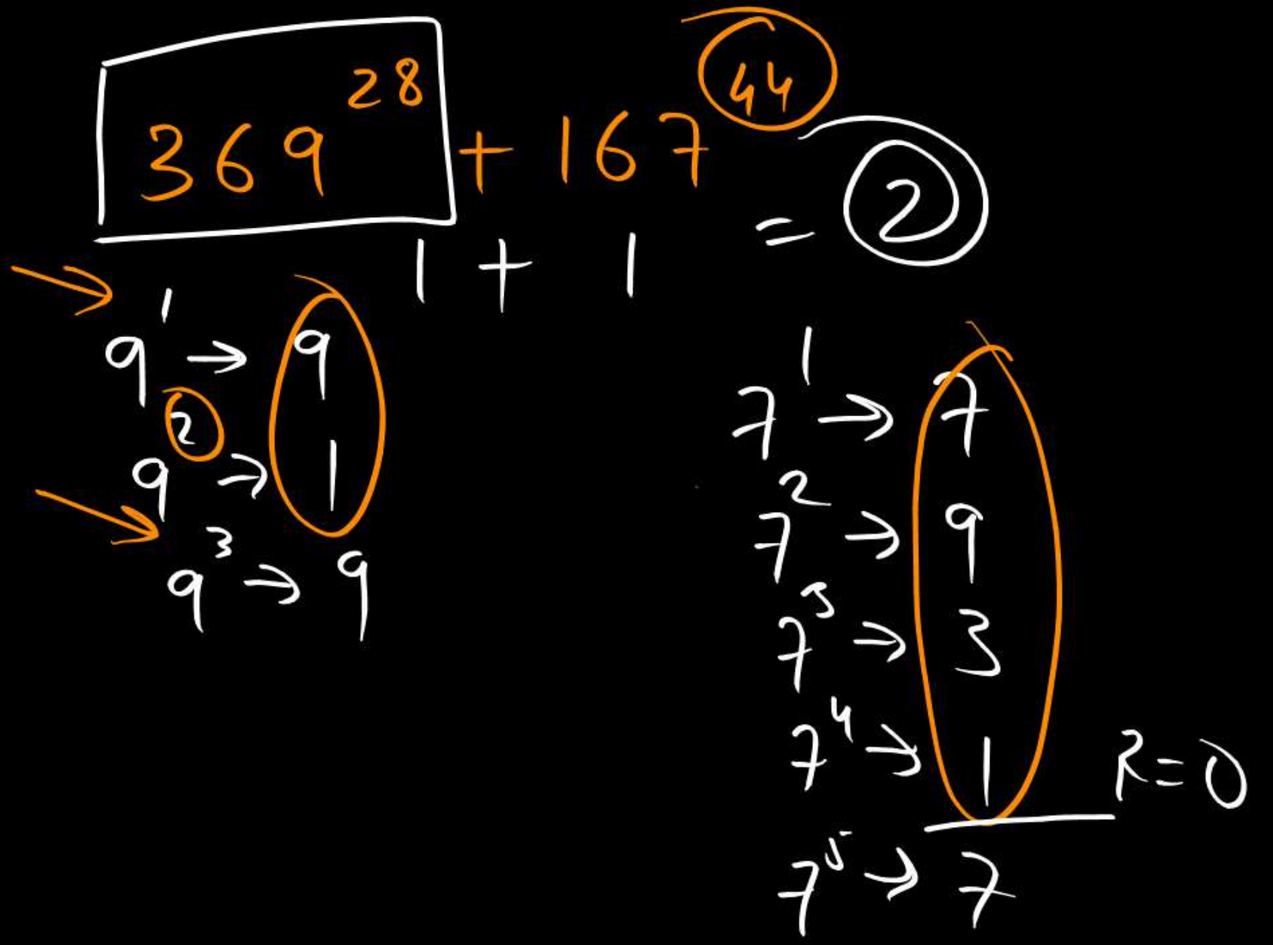
What would be the unit digit in the answer of: $369^{28} + 167^{44}$

A 1

B 6

C 2

D 7



MCQ

What is the least number that when divided by any of the numbers 7, 16, 28 leaves a remainder of 3 ?

A 116

B 115

C 227

D 113

L.C.M of 7, 16, 28 = 112

$$\begin{array}{r|l} 7 & 7,\ 16,\ 28 \\ \hline 4 & 1,\ 16,\ 4 \\ \hline & 1,\ 4,\ 1 \end{array}$$

$7 \times 4 \times 4 = 7 \times 16 = 112$

$$\begin{array}{r} 112 \\ +3 \\ \hline 115 \end{array}$$

MCQ

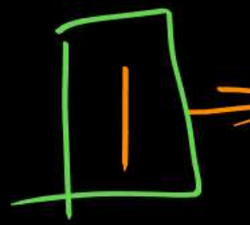
The only natural number which is neither prime nor composite is?

A 1

B 0

C 13

D 3



→ Neither Prime Nor Composite

MCQ

Which largest number of 5 digits is divisible by 99?

$99 = 9 \times 11$

A) 99999 — $27 - 18 = 9$ ×

B) 99981 — $19 - 17 = 2$ ×

C) 99909 — $27 - 9 = 18$ ×

D) 99990 — $18 - 18 = 0$

MCQ

What should be greatest possible length of a scale which can be used to measure exactly the lengths 7 m, 3 m 85 cm, 12 m 95 cm is.

A 25 cm

B 35 cm

C 45 cm

D 55 cm

H.C.F. = 35 cm

7 m = 700 cm

3 m 85 cm = 385 cm

12 m 95 cm = 1295 cm

35) 1295 (37
105
245
245

385) 700 (1
385
315) 385 (1
315
70) 315 (4
280
35) 70 (2
70
0

MCQ

Find the least multiple of 7, which leaves a remainder of 4, when divided by 6, 9, 15 and 18 is:

A 94 ×

B 184 ×

C 274 ×

D 364 ✓

L.C.M ×

+4

Multiple of 7

= 364

Thank You!

GW Soldiers