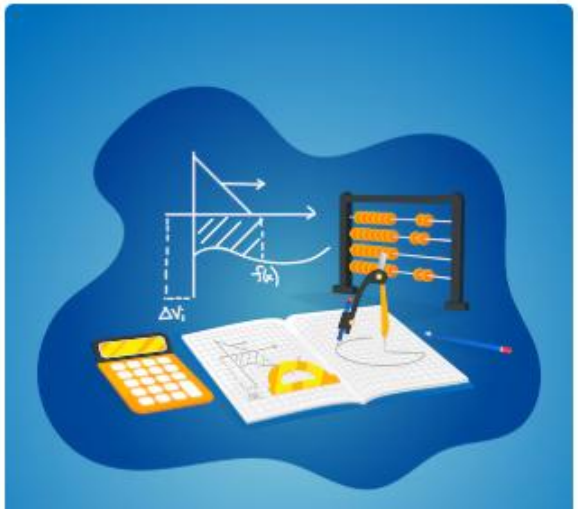
PW SKILLS | Aptitude Training

# Quantitative Aptitude:
## Number Systems

### Unit's Place

# Unit's Place: Problems Level 1



Q1. What is the last digit of the expression $777^{777}$?

A. 3 B. 1 C. 7 D. 9

$777^{777}$

$\Rightarrow 7^{777}$

$\frac{777}{4} \Rightarrow \frac{77}{4}$ R $\Rightarrow 1$

$\Rightarrow 7^1 = 7$

7, 9, 3, 1

77

40 37

36 1

Q2. The unit's digit of the product $3^{1001} \times 7^{22002} \times 13^{333003}$ is:

A. 3 B. 1 C. 5 D. 9

$3^{1001} \times 7^{22002} \times 3^{333003}$

$\Rightarrow 3^{01} \times 7^{02} \times 3^{03}$

$= 3 \times 9 \times 7$

$= 7 \times 7$

$= 9$


Q3. The unit's digit of the sum $22^{222} + 33^{333} + 44^{444}$ is:

A. 3 B. 1 C. 5 D. 9

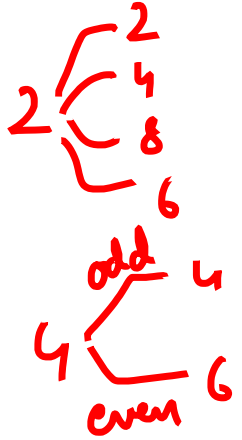
$2^{222} + 3^{333} + 4^{444}$

$\frac{222}{4} \Rightarrow \frac{22}{4}$ R $\Rightarrow 2$

$\frac{333}{4} \Rightarrow \frac{33}{4}$ R $\Rightarrow 1$

$2^2 + 3^1 + 4^{\text{even}}$

$= 4 + 3 + 6 = 13 \Rightarrow 3$ //




Q4. What is the last digit of the expression $13^{246} \times 98^{531} + 34^{567}$?

A. 6 B. 4 C. 2 D. 9

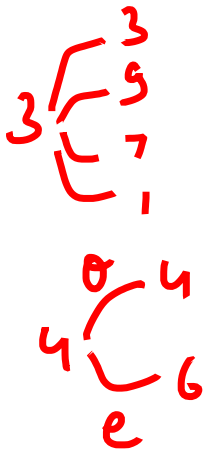
$3^{246} \times 8^{531} + 4^{ODD}$

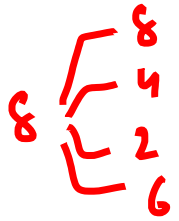
$\frac{246}{4} \Rightarrow \frac{46}{4}$ R $\Rightarrow 2$ | $\frac{531}{4} \Rightarrow \frac{31}{4}$ R $\Rightarrow 3$

$3^2 \times 8^3 + 4$

$9 \times 2 + 4$

$8 + 4 = 12 \Rightarrow 2$ //



Q5. What is the last digit of the expression $23^{1234} + 55^{777} \times 66^{888}$ ?

A. 3 B. 1 C. 7 D. 9

$3^{1234} + 5 \times 6$

$\Rightarrow 3^{1234} + 0 \Rightarrow 3^{1234}$

$\frac{1234}{4} \Rightarrow \frac{34}{4}$ R $\rightarrow 2$

$\Rightarrow 3^2 = 9$

3 → 3
9
7
1

5 → 5

6 → 6

Q6. What is the last digit of the expression $123^{12} + 642^{56} \times 678^{468}$ ?

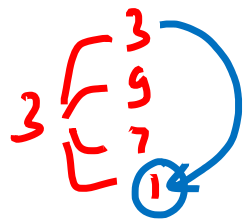
A. 3 B. 1 C. 7 D. 9

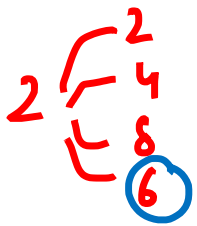
$3^{12} + 2^{56} \times 8^{468}$

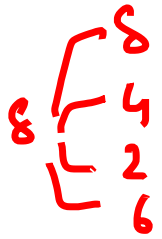
$\frac{12}{4} \Rightarrow R \Rightarrow 0$ | $\frac{56}{4} \Rightarrow R \Rightarrow 0$ | $\frac{468}{4} \Rightarrow \frac{68}{4} \Rightarrow R \Rightarrow 0$

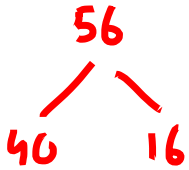
$1 + 6 \times 6$

$\Rightarrow 1 + 6 \Rightarrow 7$





# Thanks!