

$$\begin{array}{r}
 5 \overline{) 26547530} \\
 \underline{25} \\
 15 \\
 \underline{15} \\
 0 \\
 \underline{0} \\
 6591 \text{ (circled)} \\
 \underline{175} \text{ (circled)}
 \end{array}$$

$\Rightarrow 2654!$ कि अन्त No. of zeros?

$$\begin{array}{l}
 \frac{2654}{5} \Rightarrow \boxed{530} \\
 \quad \quad \quad + \\
 \frac{530}{5} = \boxed{106} \\
 \quad \quad \quad + \\
 \frac{106}{5} \Rightarrow \boxed{21}
 \end{array}$$

$$\begin{array}{l}
 530 + 106 + 21 + 4 \\
 \Rightarrow 661
 \end{array}$$

$$\frac{21}{5} = \boxed{4}$$

659! में Last में 0 zeros?

No. of zeros =

$$\begin{array}{r} 131 \\ 26 \\ + 5 \\ \hline 163 \end{array}$$

$\frac{659}{5} \Rightarrow 131$

$\frac{131}{5} \Rightarrow 26$

$\frac{26}{5} \Rightarrow 5$

$\frac{5}{5} \Rightarrow 1$

$\Rightarrow 10^5 + 10^4 + 10^3 + 10^2 + 10^1$ के अन्त में कितने
 शून्य होंगे ?

सबसे छोटी
 power के बराबर
 zeros

$$\begin{array}{r}
 \rightarrow 100000 \\
 \rightarrow 10000 \\
 \rightarrow 1000 \\
 + 100 \\
 \hline
 111110 \checkmark
 \end{array}$$

Q → $10^1 + 10^2 + 10^2 + 10^4 + \dots \dots \dots 10^{999}$ के Last में
No. of zeros = ?

↓
प्रथम की power

No. of zeros $\Rightarrow 1$

Q. $9^2 + 10^2 + 11^2 + 12^2 + 13^2 + \dots$ 20 terms last
 # No. of
 zeros = ?

Unit digit $\rightarrow \underbrace{1+0+1+4+9+6+5+6+9}_{+4+1+0}$

$\rightarrow 6$

No. of zero $\rightarrow$ nil (કોઈ શ
 zero નથી)

Q. $1^2 \times 2^2 \times 3^2 \times 4^2 \times 5^2 \times \dots \dots \dots 100^2$ में Last में
No. of zeros = ?

$1 \times 2 \times 3 \times 4 \times 5 \times 6 \dots \dots \dots \times 100$

$$\frac{100}{5} \Rightarrow \boxed{20}$$

100! के Last में No of zero = 24

$$\frac{20}{5} \Rightarrow \boxed{4}$$

वास्तविक शून्यों की संख्या $\Rightarrow 24 \times 2$
 $\Rightarrow 48$

Q. $1^2 \times 2^2 \times 3^2 \times 4^2 \times \dots \dots \dots 650^2$ के Last
में No. of
Zeros = ?

$$\begin{array}{l} 650 \div 5 = 130 \\ 130 \div 5 = 26 \\ 26 \div 5 = 5 \\ 5 \div 5 = 1 \end{array}$$

$$\Rightarrow 162 \times 2 \Rightarrow \boxed{324}$$

$$\begin{array}{r}
 5 \overline{) 2654} \begin{array}{l} 530 \\ \underline{25} \\ 15 \\ \underline{15} \\ \times \end{array} \Rightarrow 2654
 \end{array}$$

$$\begin{array}{r}
 \Rightarrow 659 \\
 5 \overline{) 659} \begin{array}{l} 13100 \\ \underline{5} \\ 15 \\ \underline{15} \\ 0 \\ \underline{0} \\ 50 \\ \underline{50} \\ 0 \end{array}
 \end{array}$$

Q → $1^3 \times 2^3 \times 3^3 \times \dots \times 1000^3$ की Last की
 No. of zeros?

$$\left. \begin{array}{l} \frac{1000}{5} = 200 \\ \frac{200}{5} = 40 \\ \frac{40}{5} = 8 \\ \frac{8}{5} = 1 \end{array} \right\}$$

$$249 \times 3 = \underline{747} \text{ zeros}$$

$$\begin{array}{r} 249 \\ \times 3 \\ \hline 747 \end{array} \quad \begin{array}{l} 2 \\ 1 \end{array}$$

Q. $2 \times 4 \times 6 \times 8 \times 10 \times 12 \times \dots \times 500$ में Last में
No. of Zeros

2 4 6 8 10
5 5

250 250
5 10 2
62

Q. सभी विषम प्राकृत संख्याओं के गुणफल के अन्त में शून्यों की संख्या = ?

5 व 2 का
pair

$1 \times 3 \times 5 \times 7 \times 9 \times 11 \dots$

0