

UNIT DIGIT CONCEPT AND TENTH DIGIT CONCEPT

* UNIT DIGIT CONCEPT.

Eg 2 23^{23}

$\Rightarrow 3^{23}$

$\Rightarrow 3^3$

$\Rightarrow 27$

$\therefore$ Unit place of 23^{23} is 7.

* $\therefore$ "4" is the Universal Digit.

Eg: $(124)^{372}$

$\Rightarrow 4^{372}$

$\Rightarrow 44$

$\Rightarrow 4 \times 4 \times 4 \times \dots$

$\Rightarrow 16 \times 16$

$\Rightarrow 36$

$\therefore$ Unit place of $(124)^{372}$ is 6.

Eg 2 23^{23}

$\Rightarrow 3^{23}$

$\Rightarrow 3$

$\Rightarrow 3^{27}$

$\Rightarrow 3 \Rightarrow 27$

$\therefore$ 7 ✓

STEP I: Remove the digit before the unit digit of the eqn.

STEP II: Divide the power by "4" and put the rem. to the power.

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* If the rem. is "0" then we put "4" to the power.

$4 | 372 | 93$

$\frac{372}{4}$

$\times$

rem 20.

$4 | 27 | 6$

$\frac{27}{4}$

$\times$

rem 3.

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