

# How to Solve: Last Two Digits of Numbers ending with 5

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YouTube Video Link to this Post is [Here](#)

Following is Covered in the Video

## Theory of Last Two Digits of Numbers Ending with 5

- Find Last two digits of  $735^{637}$  ?
- Find Last two digits of  $785^{989}$  ?
- Find Last two digits of  $15635^{372}$  ?

## Theory of Last Two Digits of Numbers Ending with 5

**If the exponents is of the format:**

- $(O5)^O$ , where O is Odd, then last two digits = 75
- Otherwise, last two digits = 25 (i.e.  $(O5)^E, (E5)^O, (E5)^E$ , where O is Odd and E is Even)

**Q1. Find Last two digits of  $735^{637}$  ?**

**Sol:** Number before 5 is Odd (735)

Exponent = Odd (637)

=>  $(O5)^O$  case

=> Last two digits = 75

**Q2. Find Last two digits of  $785^{989}$  ?**

**Sol:** Number before 5 is Even (785)

Exponent = Odd (989)

=>  $(E5)^O$  case

=> Last two digits = 25

**Q3. Find Last two digits of  $15635^{372}$  ?**

**Sol:** Number before 5 is Odd(156**3**5)

Exponent = Even (373)

=> (05)<sup>E</sup> case

=> Last two digits = 25

[Link to Theory for Units' digit of exponents here.](#)

Hope it helps!