

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

By [BrushMyQuant](#)



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:

- $(05)^O$, where O is Odd, then last two digits = 75
- Otherwise, last two digits = 25 (i.e. $(05)^E, (E5)^O, (E5)^E$, where O is Odd and E is Even)

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

Sol: Number before 5 is Odd (7**3**5)

Exponent = Odd (637)

=> $(05)^O$ case

=> Last two digits = 75

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

Sol: Number before 5 is Even (7**8**5)

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)

=> $(05)^E$ case

=> Last two digits = 25

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

Hope it helps!