



# How to Solve: Units' Digit of Power of 5

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

Following is Covered in this post

## Theory of Units' Digit of Power of 5

- Find Units' digit of  $5^{61}$  ?
- Find Units' digit of  $5^{33}$  ?
- Find Units' digit of  $5^{79x+31}$  (given that x is a positive integer)?
- Find Units' digit of  $1055^{199}$  ?

## Theory of Units' Digit of Power of 5

- To find units' digit of any positive integer power of 5

**We need to find the cycle of units' digit of power of 5**

$5^1$  units' digit is 5

$5^2$  units' digit is 5

**=> Units' digit of any positive integer power of 5 = 5**

**Q1. Find Units' digit of  $5^{61}$ ?**

**Sol:** Since 61 is a positive integer

=> Units' digit of  $5^{61} = 5$

**Q2. Find Units' digit of  $5^{33}$ ?**

**Sol:** Since 33 is a positive integer  
 $\Rightarrow$  Units' digit of  $5^{33} = 5$

**Q3. Find Units' digit of  $5^{79x+31}$  (given that x is a positive integer)?**

**Sol:** Since  $79x + 31$  is a positive integer  
 $\Rightarrow$  Units' digit of  $5^{79x+31} = 5$

**Q4. Find Units' digit of  $1055^{199}$  ?**

**Sol:** Units' digit of power of any number = Units' digit of power of the units' digit of that number  
 $\Rightarrow$  Units' digit of  $1055^{199} =$  Units' digit of  $5^{199}$   
Since 199 is a positive integer  
 $\Rightarrow$  Units' digit of  $1055^{199} = 5$

**Hope it helps!**