The Last Digit

What is the last digit of

5^4

LD = 5

5
25
125
625

5^7

LD = 5

5^{658}

LD = 5

What about the last digit of

4^6?

4 → 4 → 16 → 64 → 256

4^{17}? LD = 4

4^{398} LD = 6

Working in pairs, work out the last digit of

10^{56} It will be zero

6^{92} It will be a 6

2^{33}

power	1	2	3	4	5	6	7	8	9
last digit	2	4	8	6	2	4	8	6	2

2^{4n} will end in a 6

2^{32}

2^{33} ends in 2

3^{19}

7^{41}

pow	1	2	3	4	5	6	7	8	9
	3	9	7	1	3	9	7	1	3

	1	2	3	4	5	6	7	8
	7	9	3	1	7	9	3	1

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