

14 - Palindrome Numbers

Please go through each slide stopping until you have understood the concept described

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### 14 - Palindrome Numbers

# Palindrome numbers are the same backwards as forwards, just like palindrome words like LEVEL and CIVIC

Select a 3 digit number, e.g. 173, and 248

	173	248
Reverse it	371	842
Add	544	1090
Reverse again	445	0901
Add	949	1991

The answer is always a Palindrome Number!



## 14 - Palindrome Numbers

### Try your own 3 digit numbers.

e.g. 567, and 978

	567	978
Reverse it	765	879
Add	1332	1857
Reverse again	2331	7581
Add	3663	8338

### Sums. The're Math Magic

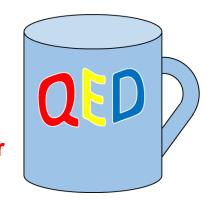
### 14 - Palindrome Numbers

#### So we need to prove it with the number ABC

	<b>Hundreds</b>	Tens	Units
Start	Α	В	С
Reverse	C	B	A
Add	A+C	2B	A+C
Reverse	C+A	2B	C+A
Add	2(A+C)	2B	2(A+C)

Clearly the answer is a Palindrome Number

The proof for four and more digit numbers is similar



Sums. The're Math Magic

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Please go to the next lesson.

**Problems Solved**