Approach:	Independent	Year:	4 & 8
Focus:	Addition and subtraction; place value		
Resources:	Answer booklet		

Questions / instructions:

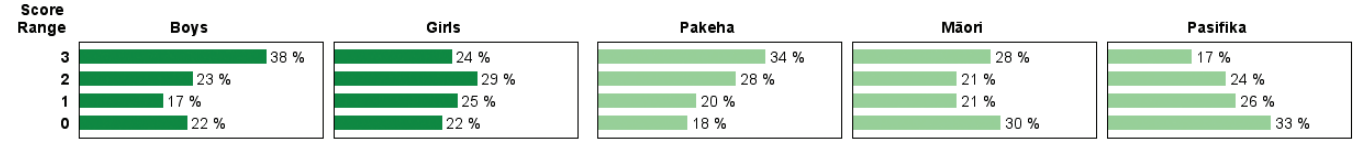
Imagine you have a time machine. You can travel in it from this year (2005) back to the past and forward to the future. The trip meter can be set to show you what year you will travel to.

	% response 2009 ('05) year 4	% response 2009 ('05) year 8
1. Write what the trip meter will show if the time machine travels **two years into the future** from: 2005 → 2007	77 (76)	98 (95)
2. Write what the trip meter will show if the time machine travels **twenty years into the future** from: 2005 → 2025	57 (51)	94 (89)
3. Write what the trip meter will show if the time machine travels **two hundred years into the future** from: 2005 → 2205	32 (29)	85 (82)
YEAR 8 ONLY:		
4. Write what the trip meter will show if the time machine travels **two thousand years into the future** from: 2005 → 4005		88 (81)
5. Write what the trip meter will show if the time machine travels **two years back to the past** from: 2005 → 2003		96 (92)
6. Write what the trip meter will show if the time machine travels **twenty years back to the past** from: 2005 → 1985		74 (69)
7. Write what the trip meter will show if the time machine travels **two hundred years back to the past** from: 2005 → 1805		64 (63)
8. Write what the trip meter will show if the time machine travels **two thousand years back to the past** from: 2005 → 0005 *(zeros were left out)*		72 (66)

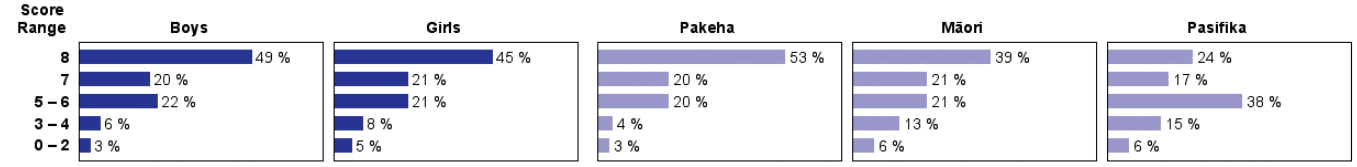
		% response 2009 ('05) year 4	% response 2009 ('05) year 8
Y4 total score:	3	31 (27)	
	2	26 (24)	
	1	21 (27)	
	0	22 (22)	
Y8 total score:	8		47 (37)
	7		20 (25)
	5–6		22 (23)
	3–4		7 (8)
	0–2		4 (7)

Subgroup Analyses:

Year 4



Year 8



Commentary:

Between 2005 and 2009 there was a small improvement for year 8 students. Year 4 students were much less successful in changing the hundreds digit than the tens or ones digit.