

Maths Focus: Calculating differences and identifying a rule

Helpful Hints: calculate the difference between each number in the sequence to help you to identify the rule

Level I	Level 2	Level 3
Aidan has written some sequences of	Aidan has written some sequences of numbers	Aidan has written some sequences of numbers
numbers and he needs your help. For each	and he needs your help. For each sequence,	and he needs your help. For each sequence, work
sequence, carry it on with the next 3	work out any missing gaps in the sequences	out any missing gaps in the sequences and then
numbers and explain what the rule is below.	and then explain the rule below.	explain the rule below.
1) 2, 5, 8, 11, 14, 17, 20	1) 99, 92, 85, 78, 71, 64, 57	1) 1, 4, 9, 16, 25, 36
Rule= add/increase by 3 each time	Rule= subtract/decrease by 7 each time	Rule= square numbers in order
2) 50, 48, 46, 44, 42, 40, 38	2) 55, 64, 73, 82, 91, 100, 109	2) 3½, 7, 10½, 14, 17½, 21, 24½
Rule= subtract/decrease by 2 each time	Rule= add/increase by 9 each time	Rule= add/increase by 3½ each time
3) 0, 15, 30, 45, 60, 75, 90	3) 5, 0, -5, -10, -15, -20, -25	3) -0.75, -0.5, -0.25, 0, 0.25, 0.5
Rule= add/increase by 15 each time	Rule= subtract/decrease 5 each time	Rule= add/increase by 0.25 each time