Linear Relationships

Task 1

Fill in the gaps - the sequences all continue in equal steps.

①	2	5			14		⑥		13			19	
②		12	20				⑦		8				32
③			16	20			⑧			17			38
④	3		11		19		⑨			12	8		
⑤		7		17		27	⑩	3.4			7.9		

What was different about sequence ⑨?
Did this change how you worked out the missing terms?

Task 2a

Fill in the gaps - the sequences all continue in equal steps.

①		0				12
②	0		12			
③			1			13
④	5					

How would you work out the equal steps in ④ if you knew the value of the ☁?

Task 2b

How would you work out the equal steps in these if you knew the value of the ?

⑤ 5

⑥ 5

⑦ 5

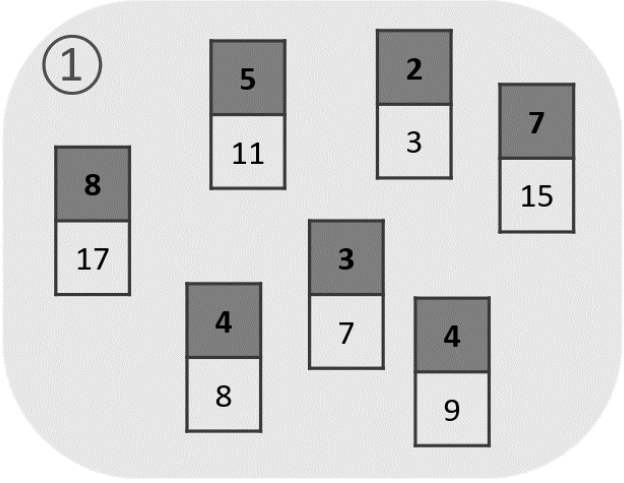
⑧ 5 . . . . . .

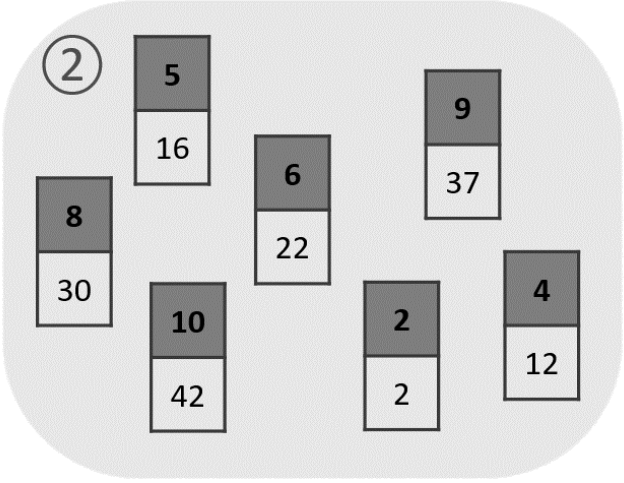
⑨ . . . . . .

Generalise your method used in questions ⑤ to ⑦.

Task 3

Below are some numbers (terms) with their positions in a sequence.
In each box, two of the terms don't belong in the sequence.
Can you work out which ones? How did you know?





Task 4a

Fill in the gaps - the sequences all continue in equal steps.

①

Position		1	2	3	4	5	6	
Term			8		18			

②

Position		1	2	3	4	5	6	
Term				14			32	

③

Position		1	2		7	8	9	
Term		13	20					

④

Position		1		6		10	11	
Term		-3		27				

Task 5

Fill in the gaps - the sequences all continue in equal steps.

①

x	1	2	3	4	5	6
y		2	5			

②

x		4	5		11	12
y			19		43	

③

x	0	1		5	6	7
y					15	17

④

x						
y						

Task 4b

The following sequences have equal steps

Complete the sequences, then plot the position against the term on the graph below.

Draw a line through your points for each sequence.

①

Position	1	2	3	4	5	6
Term		5		9	11	

②

Position	0	1		4	5	6
Term		4			8	

③

Position	0		5		8	9
Term			12		18	

What features of the graph can you 'see' in the tables?