

Varied Fluency

Step 2: Draw Line Graphs

National Curriculum Objectives:

Mathematics Year 6: (6S1) [Interpret and construct pie charts and line graphs and use these to solve problems](#)

Differentiation:

Developing Questions to support drawing line graphs with 1 set of data. Axes in multiples of 2, 5 and 10. All axes labelled on templates.

Expected Questions to support drawing line graphs with 1 or 2 sets of data. Axes in varying scales. Most axes labelled on templates.

Greater Depth Questions to support drawing line graphs with 2 sets of data. Axes in varying scales. Axes not labelled on templates.

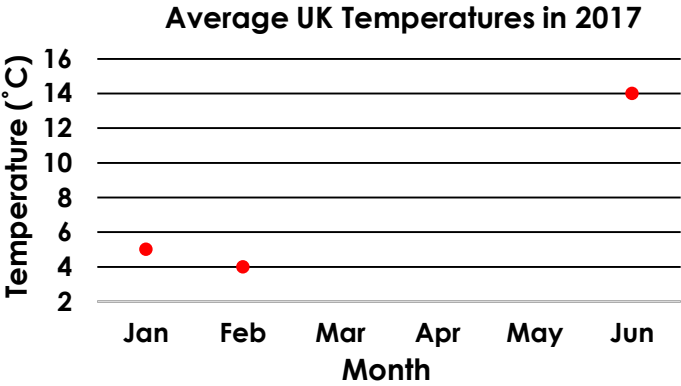
More [Year 6 Statistics](#) resources.

Did you like this resource? Don't forget to [review](#) it on our website.

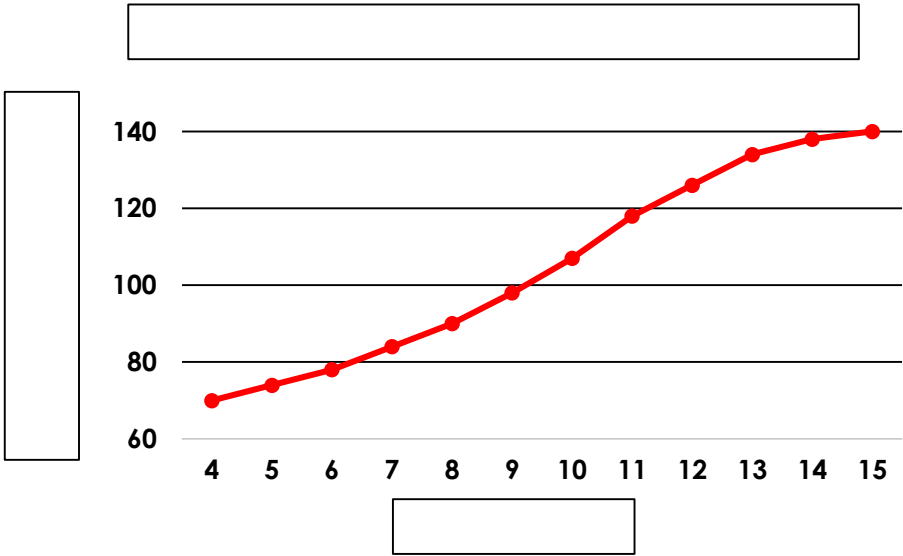
Draw Line Graphs

1a. The table and line graph show the average UK temperatures for the first 6 months of 2017. Plot the missing information on the line graph and table below.

Month	Temperature (°C)
January	
	4
	5
April	7
May	11
June	

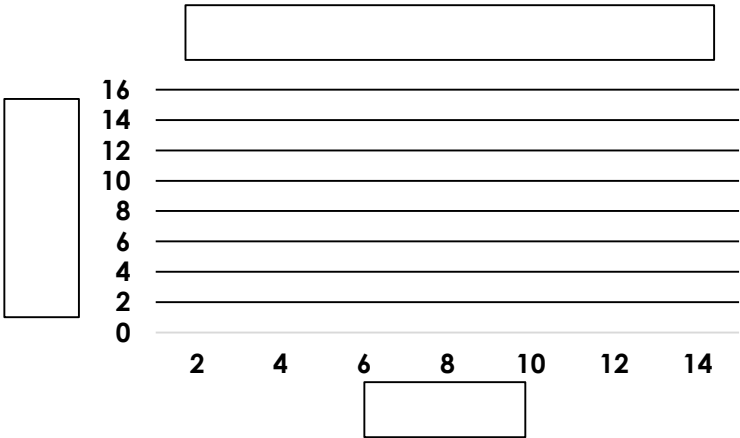


2a. The line graph below shows how tall Jack grew over 11 years in cm. Fill in the missing axes and titles.



3a. The table shows how tall a sunflower grew over two weeks. Create a line graph to represent this data. A template is provided below.

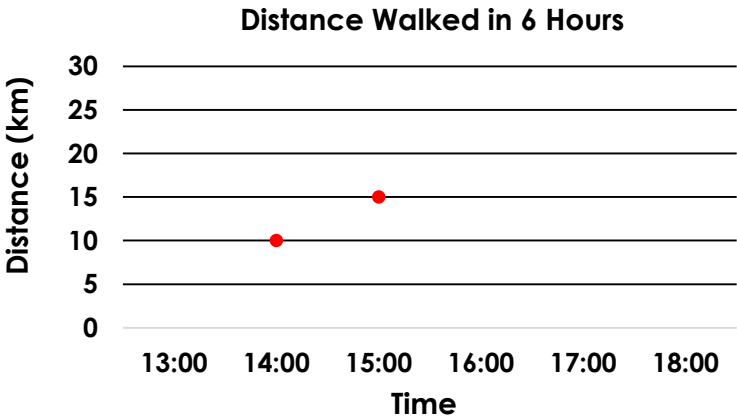
Day	Height (cm)
2	1
4	4
6	7
8	9
10	11
12	13
14	15



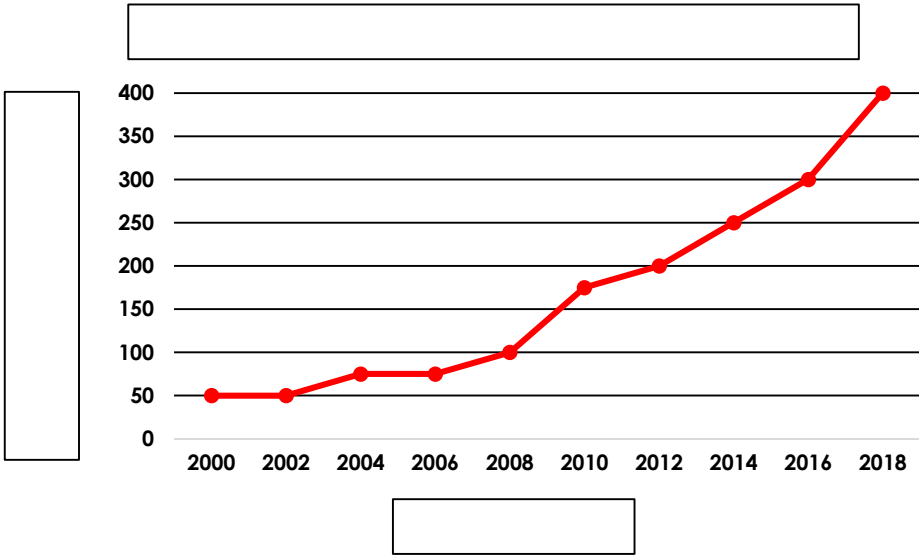
Draw Line Graphs

1b. The table and line graph show the distance Bethany walked on a hike. Plot the missing information on the line graph and table below.

Time	Distance (km)
	5
14:00	
16:00	15
	20
18:00	25

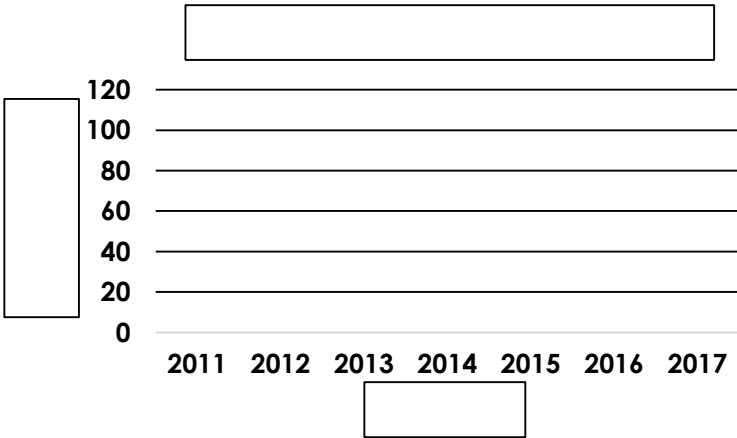


2b. The line graph below shows the number of Hando's restaurants in the UK from 1998 – 2018. Fill in the missing axes and titles.



3b. The table shows the average rainfall in the UK from 2011 – 2017. Create a line graph to represent this data. A template is provided below.

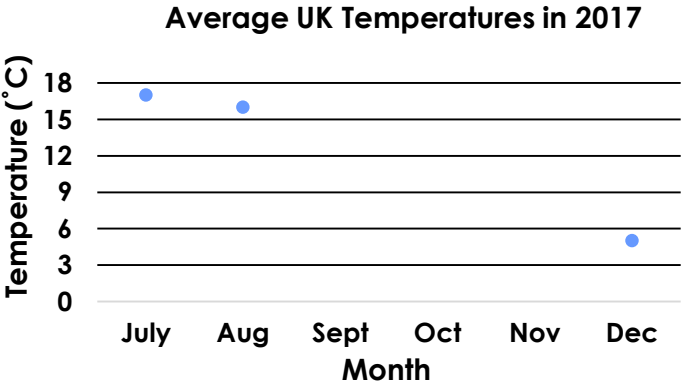
Year	Rainfall (cm)
2011	100
2012	120
2013	110
2014	115
2015	105
2016	115
2017	120



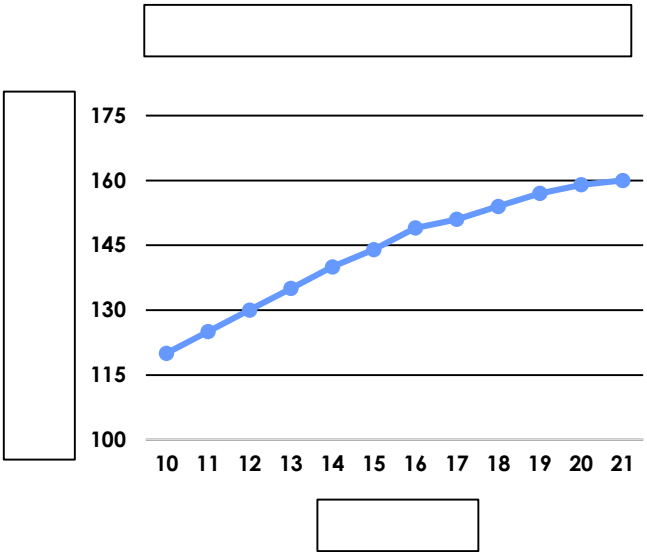
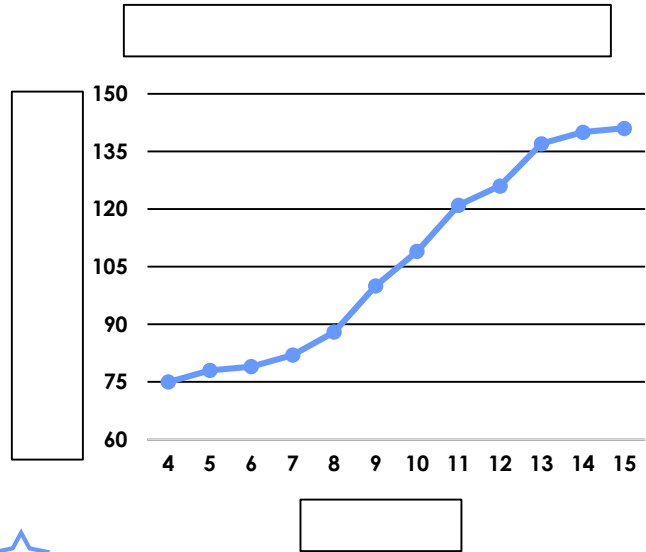
Draw Line Graphs

4a. The table and line graph show the average UK temperatures for the last 6 months of 2017. Plot the missing information on the line graph and table below.

Month	Temperature (°C)
July	
August	
	14
	10
November	7
December	

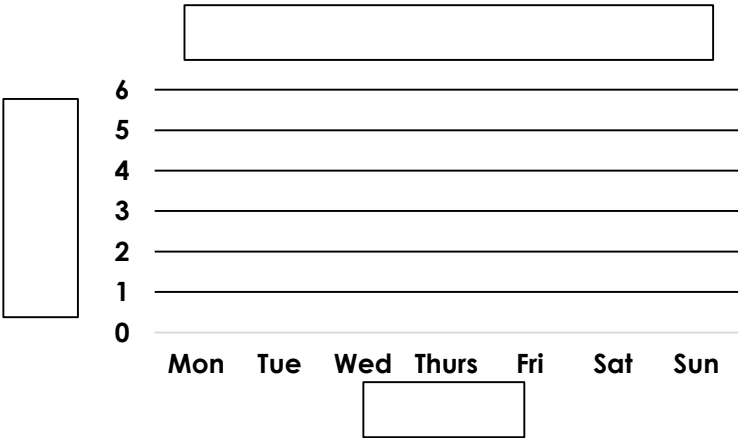


5a. The line graphs below show how tall Jordan and Ellie grew over 11 years in cm. Ellie is 6 years older than Jordan. Fill in the missing axes and titles.



6a. The table shows how far Sid walked each day for a week. Create a line graph to represent this data. A template is provided below.

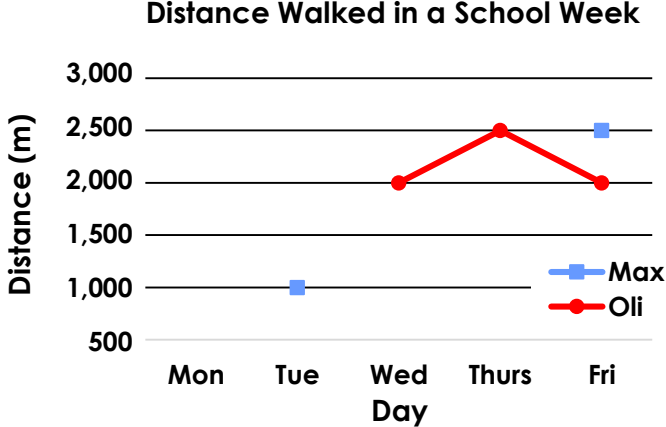
Day	Distance (km)
Monday	2.8
Tuesday	3.1
Wednesday	2.8
Thursday	2.8
Friday	3.0
Saturday	5.6
Sunday	5.9



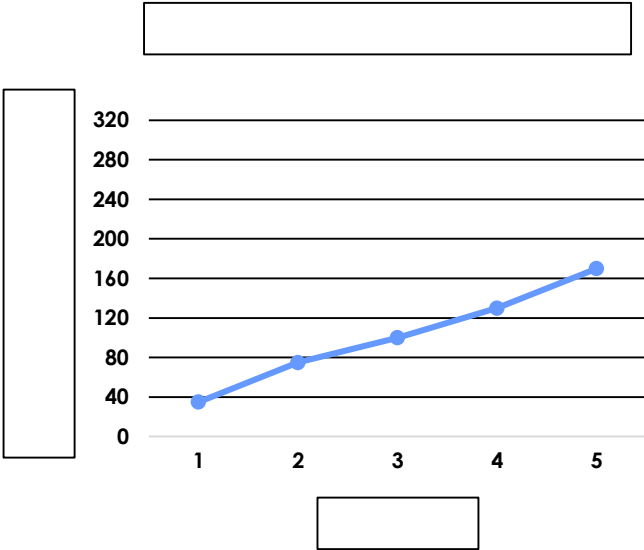
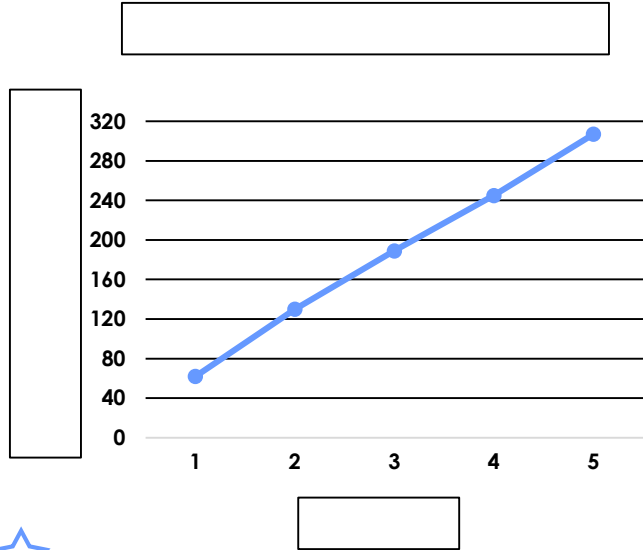
Draw Line Graphs

4b. The table and line graph show the distance Max and Oli walked during the school week. Plot the missing information on the line graph and table below.

Distance (m)		
Day	Max	Oli
	2,000	2,000
Tuesday		1,500
Wednesday	2,500	
	1,000	
Friday		

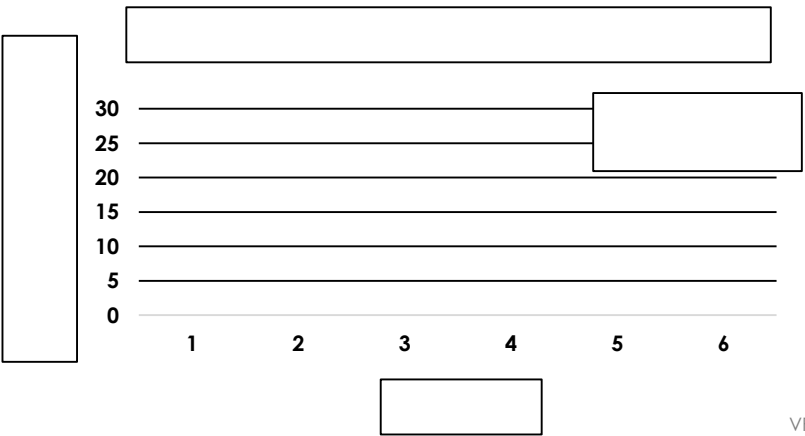


5b. The line graphs below show time taken by Kyle and Lindsay to finish 5 laps of a park in seconds. Kyle is on a bicycle. Fill in the missing axes and titles.



6b. The table shows how many 20p coins two friends saved over 6 months. Create a line graph to represent this data. A template is provided below.

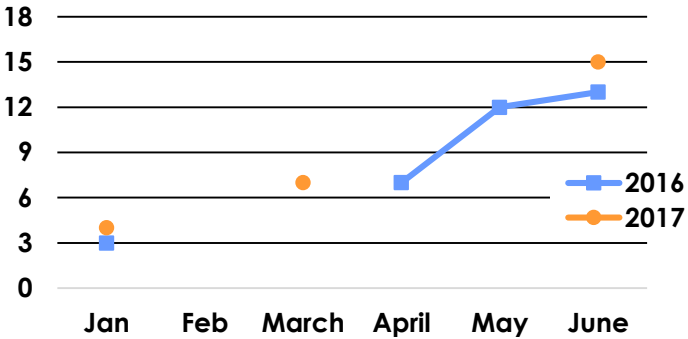
20p coins saved		
Month	Angela	Jennifer
1	25	20
2	10	5
3	20	10
4	20	25
5	5	10
6	10	10



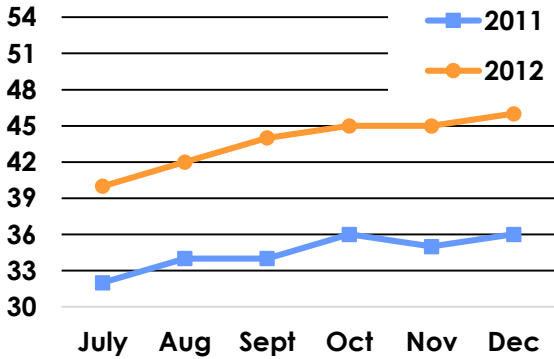
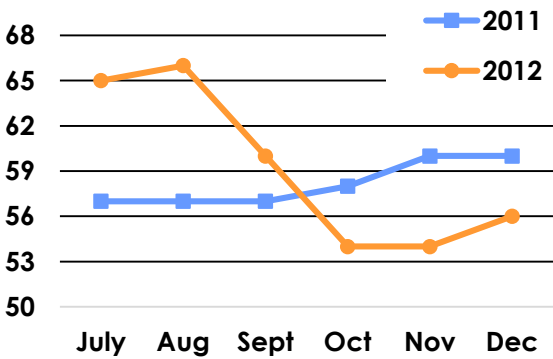
Draw Line Graphs

7a. The table and line graph show the average UK temperatures for the first 6 months in 2016 and 2017. Plot the missing information on the line graph and table below.

Month	Temperature °C	
	2016	2017
February	4	5
	5	
April		8
		12
June		

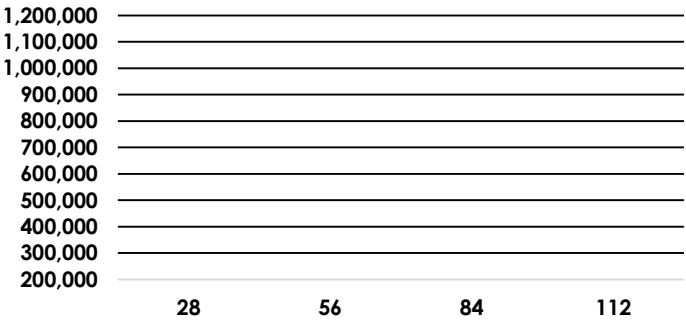


8a. The line graphs below show the changes in Sofia and Sohan's weight in kg in 2011 and 2012. Sofia is an adult and Sohan is a child. Fill in the missing axes and titles.



9a. The table below shows how far 2 space shuttles travelled over 168 days. Create a line graph to represent this data. A template is provided below.

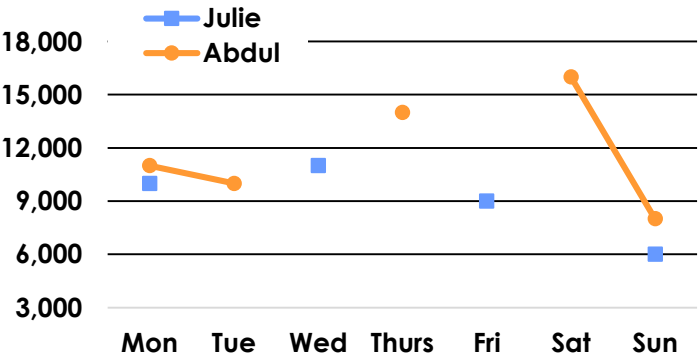
Day	Distance (km)	
	Shuttle 1	Shuttle 2
28	280,500	200,000
56	561,000	450,500
84	841,000	675,000
112	1,112,500	980,500



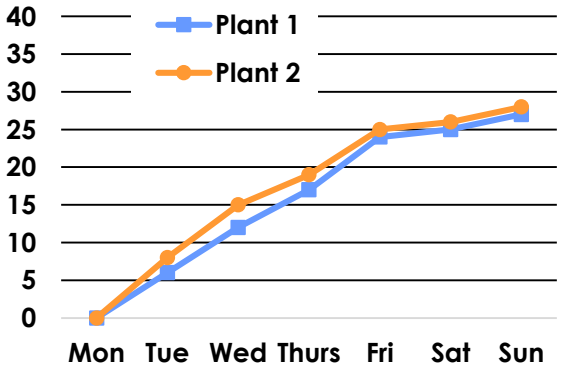
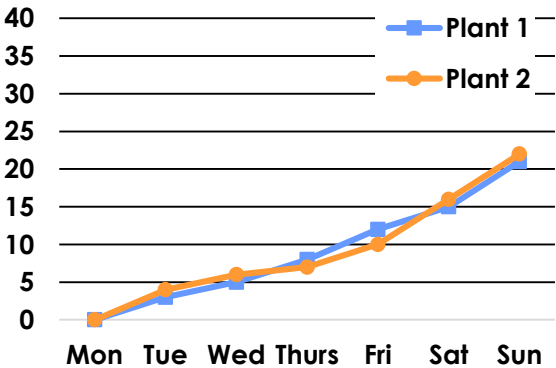
Draw Line Graphs

7b. The table and line graph show the amount of steps two friends took in a week. Plot the missing information on the line graph and table below.

Steps (Nearest 1,000)		
Day	Julie	Abdul
Monday	10,000	11,000
Tuesday	7,000	
		13,000
Thursday	12,000	
		11,000
Saturday	18,000	
Sunday		

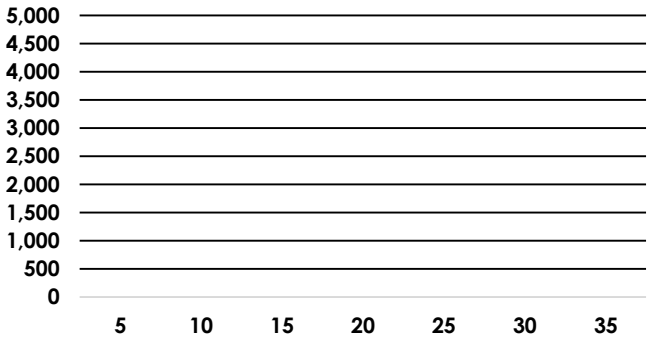


8b. The line graphs below show the growth of two plants over a week in cm. One graph shows a week in summer, the other shows a week in winter. Fill in the missing axes and titles.



9b. The table below shows the distance swam by two swimmers in 35 minutes. Create a line graph to represent this data. A template is provided below.

Distance (m)		
Time (minutes)	Swimmer 1	Swimmer 2
5	800	700
10	1,500	1,500
15	2,000	2,200
20	2,600	2,700
25	3,200	3,400
30	3,900	4,000
35	4,600	4,600



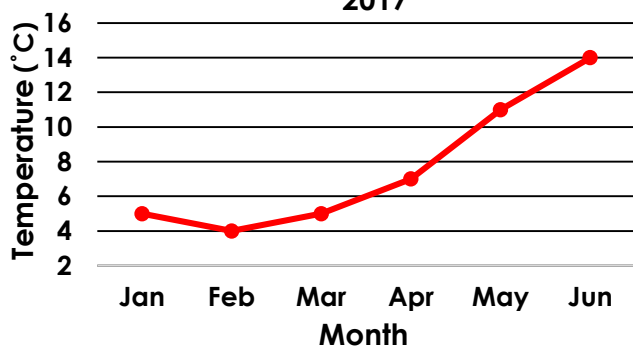
Varied Fluency Draw Line Graphs

Developing

1a.

Month	Temperature (°C)
January	5
February	4
March	5
April	7
May	11
June	14

Average UK Temperatures in 2017



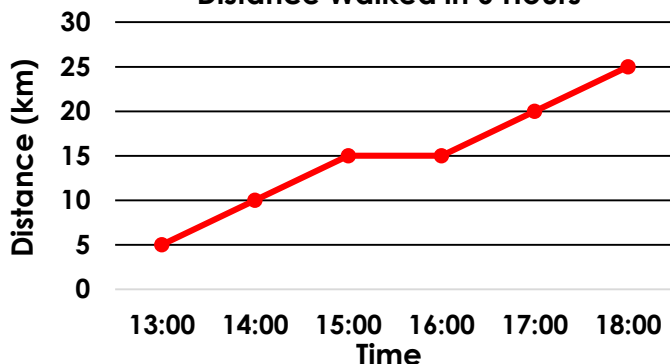
Varied Fluency Draw Line Graphs

Developing

1b.

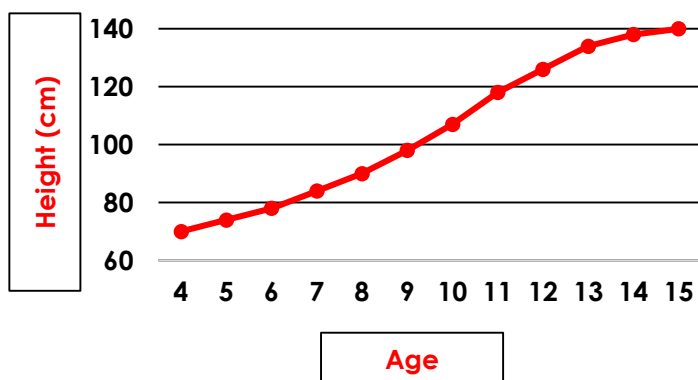
Time	Distance (km)
13:00	5
14:00	10
15:00	15
16:00	15
17:00	20
18:00	25

Distance Walked in 6 Hours



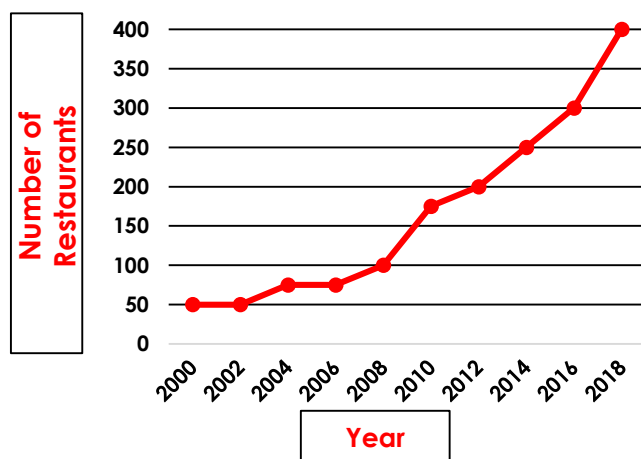
2a.

Jack's Height over 11 Years



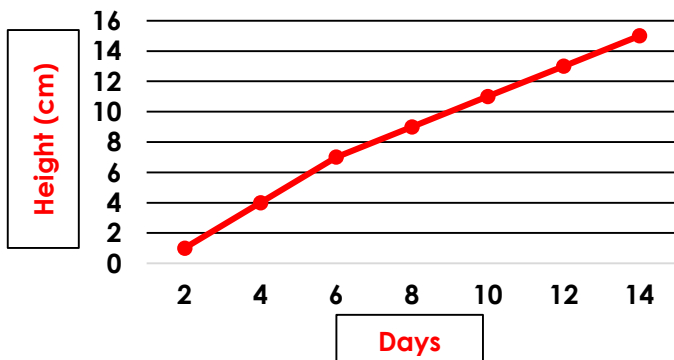
2b.

Number of Hando's Restaurants in the UK



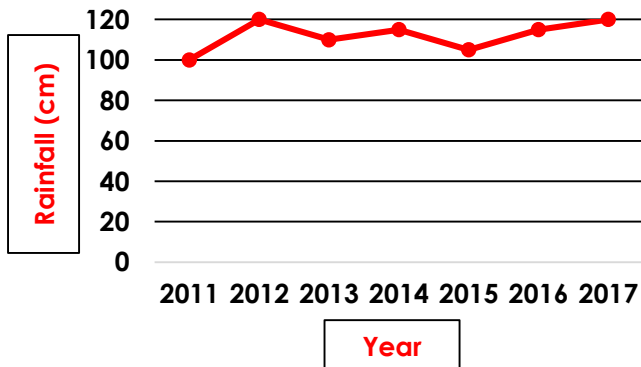
3a.

A Sunflower's Height over 2 Weeks



3b.

Average Rainfall in the UK



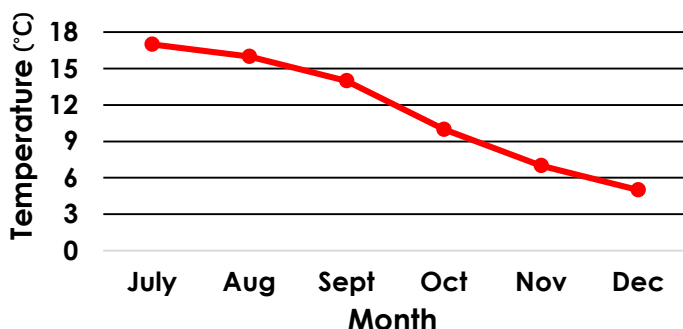
Varied Fluency Draw Line Graphs

Expected

4a.

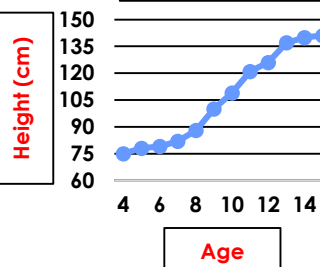
Month	Temperature (°C)
July	17
August	16
September	14
October	10
November	7
December	5

Average UK Temperatures in 2017

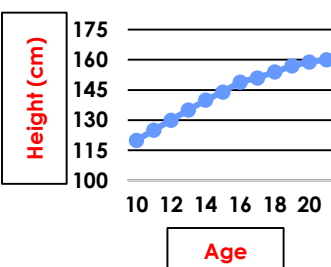


5a.

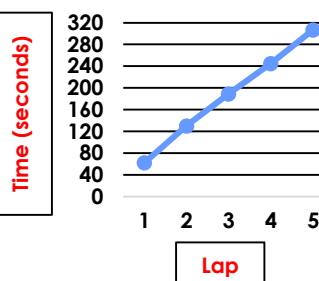
Jordan's Height over 11 Years



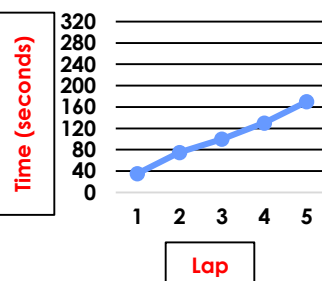
Ellie's Height over 11 Years



Lindsay's Lap Times around the Park

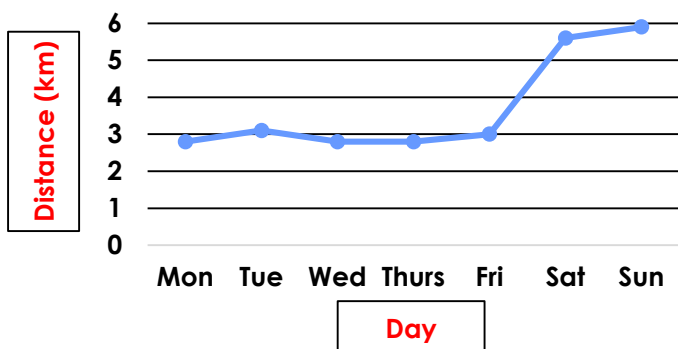


Kyle's Lap Times around the Park



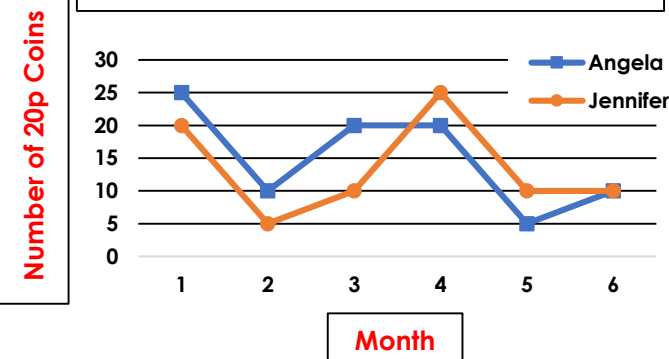
6a.

Distance Walked by Sid in a Week



6b.

Number of 20p Coins Saved over 6 Months



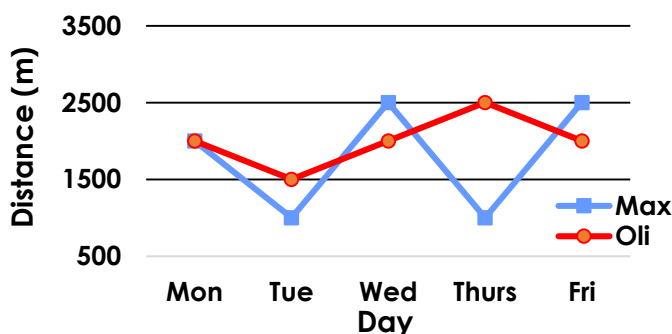
Varied Fluency Draw Line Graphs

Expected

4b.

Day	Distance (m)	
	Max	Oli
Monday	2,000	2,000
Tuesday	1,000	1,500
Wednesday	2,500	2,000
Thursday	1,000	2,500
Friday	2,500	2,000

Distance Walked in a School Week



5b.

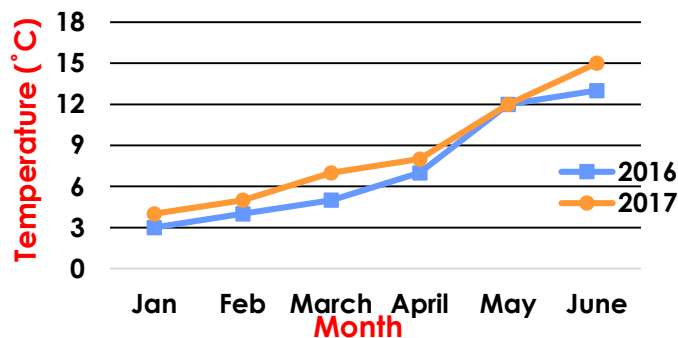
Varied Fluency Draw Line Graphs

Greater Depth

7a.

	Temperature °C	
Month	2016	2017
January	3	4
February	4	5
March	5	7
April	7	8
May	12	12
June	13	15

Average UK Temperatures in 2016 and 2017



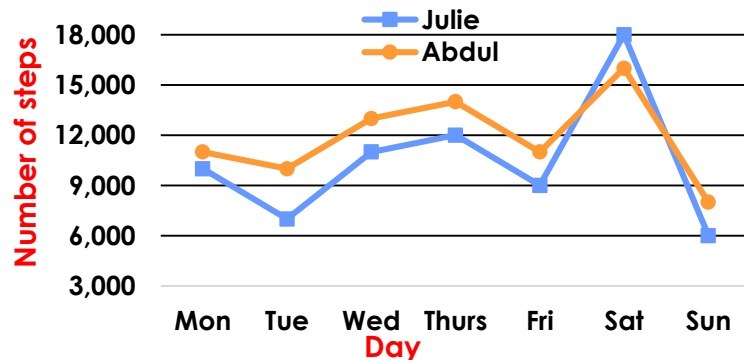
Varied Fluency Draw Line Graphs

Greater Depth

7b.

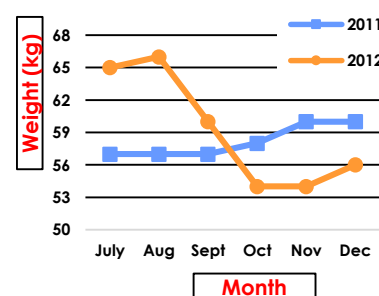
	Steps (Nearest 1,000)	
Day	Julie	Abdul
Monday	10,000	11,000
Tuesday	7,000	10,000
Wednesday	11,000	13,000
Thursday	12,000	14,000
Friday	9,000	11,000
Saturday	18,000	16,000
Sunday	6,000	8,000

Number of Steps Taken in a Week

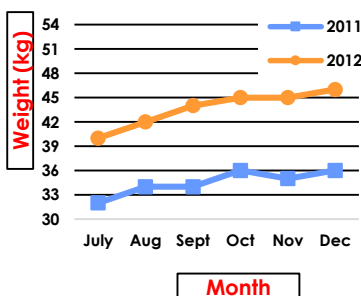


8a.

Sofia's Change in Weight in 2011 and 2012

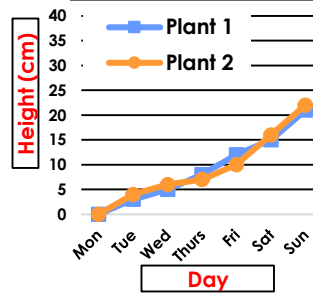


Sohan's Change in Weight in 2011 and 2012

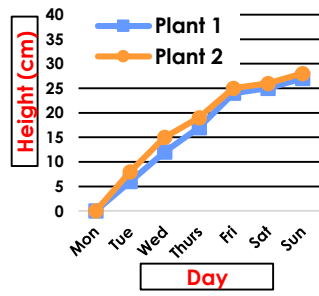


8b.

The Growth of 2 Plants in Winter

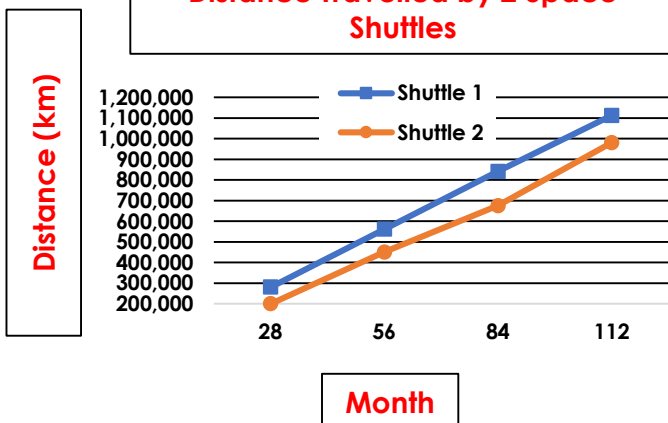


The Growth of 2 Plants in Summer



9a.

Distance Travelled by 2 Space Shuttles



9b.

Distance Swam by 2 Swimmers

