

# Homework/Extension

## Step 2: Draw Line Graphs

### National Curriculum Objectives:

Mathematics Year 5: (5S1) [Complete, read and interpret information in tables, including timetables](#)

Mathematics Year 5: (5S2) [Solve comparison, sum and difference problems using information presented in a line graph](#)

### Differentiation:

Questions 1, 4 and 7 (Varied Fluency)

**Developing** Circle the error/s in the line graph. Graphs use labelled increments of 2, 5 or 10. Some data points are halfway between labelled increments where the halfway lines are shown but not labelled.

**Expected** Circle the error/s in the line graph. Some data points are between labelled increments where the minor lines are shown but not labelled. Some reading between labelled increments of 2 or 5, where an estimate of the value must be given.

**Greater Depth** Circle the error/s in the line graph. Some reading between labelled increments of 2, 5 or 10 where an estimate of any value must be given.

Questions 2, 5 and 8 (Varied Fluency)

**Developing** Complete the line graph to represent the missing data. Graphs use labelled increments of 2, 5 or 10.

**Expected** Complete the line graph to represent the missing data. Some data points are between labelled increments where the minor lines are shown but not labelled.

**Greater Depth** Complete the line graph to represent the missing data. Most data points are between labelled increments where the minor lines are shown but not labelled.

Questions 3, 6 and 9 (Reasoning and Problem Solving)

**Developing** Draw a line graph using the given information and template to help provide an explanation. Graphs use labelled increments of 2, 5 or 10. Some reading between labelled increments of 2, where an estimate of the value must be given.

**Expected** Draw a line graph using the given information and template to help provide an explanation. Some data points are between labelled increments where the minor lines are shown but not labelled.

**Greater Depth** Draw a line graph using the given information and template to help provide an explanation. Graphs use labelled increments of any value, for example: 20's, 200's, 50's or 500's. Most data points are between labelled increments where the minor lines are shown but not labelled.

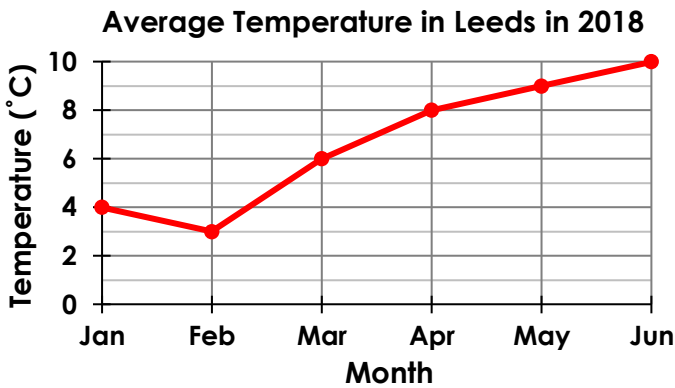
More [Year 5 Statistics](#) resources.

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

# Draw Line Graphs

1. The line graph below shows the average temperature in Leeds over 6 months. Circle the error/s plotted on the line graph.

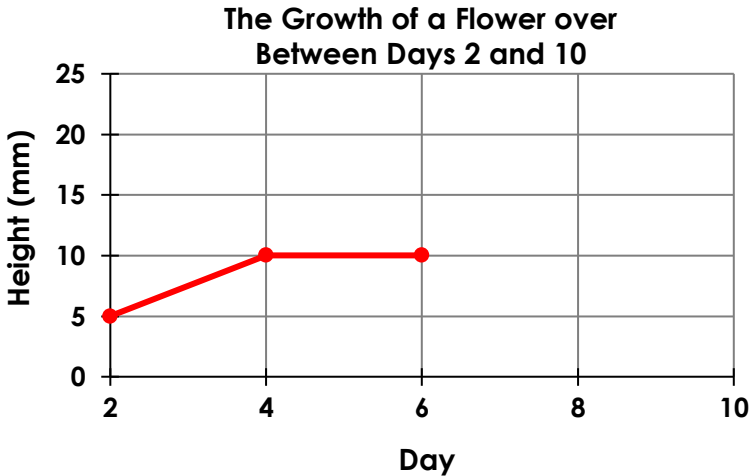
Month	Temperature (°C)
Jan	4
Feb	3
Mar	5
Apr	7
May	9
June	10



VF  
HW/Ext

2. The table below shows the growth of a flower over 10 days. Complete the line graph below to represent the missing data.

Day	Height (mm)
2	5
4	10
6	10
8	15
10	20



VF  
HW/Ext

3. Gracie has recorded the distance she managed to hop in 30 seconds.

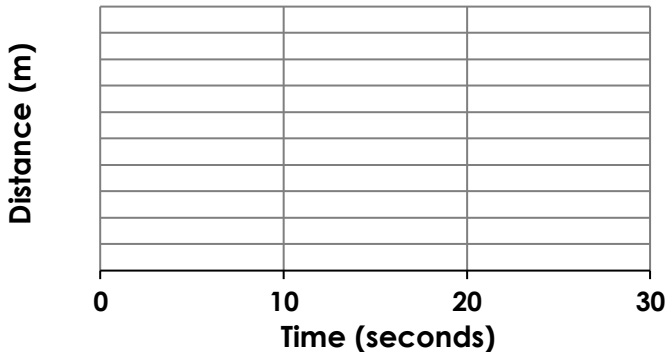
She says,



I should use increments of 1 metre on my graph to show how far I hopped in 30 seconds.

Time (seconds)	10	20	30
Distance (metres)	6	10	17

Distance Hopped by Gracie in 30 seconds



Is she correct? Prove it by using the line graph above.

Is there a more efficient scale to use?

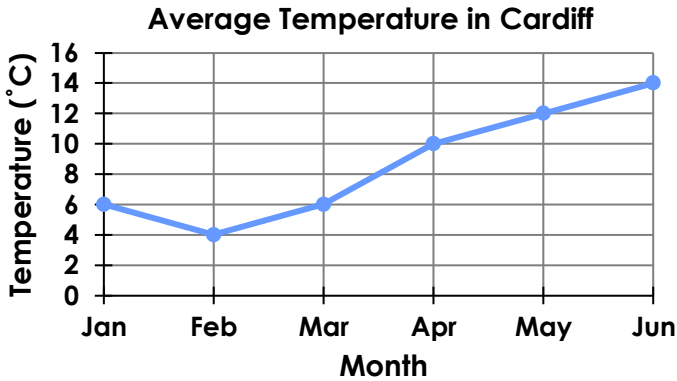


RPS  
HW/Ext

# Draw Line Graphs

4. The line graph below shows the average temperature in Cardiff over 6 months. Circle the error/s plotted on the line graph.

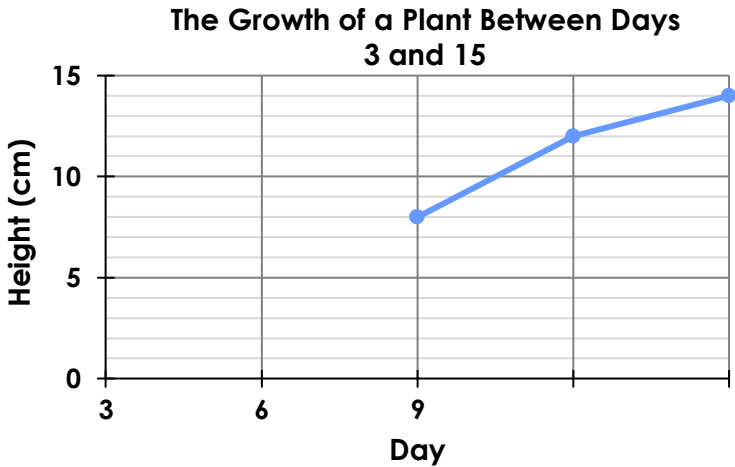
Month	Temperature (°C)
Jan	6
Feb	4
Mar	5
Apr	10
May	11
June	14



VF  
HW/Ext

5. The table below shows the growth of a plant over 15 days. Complete the line graph below to represent the missing data.

Day	Height (cm)
3	2
6	4
9	8
12	12
15	14



VF  
HW/Ext

6. Harvey has recorded the height he climbed up a mountain during one hour.

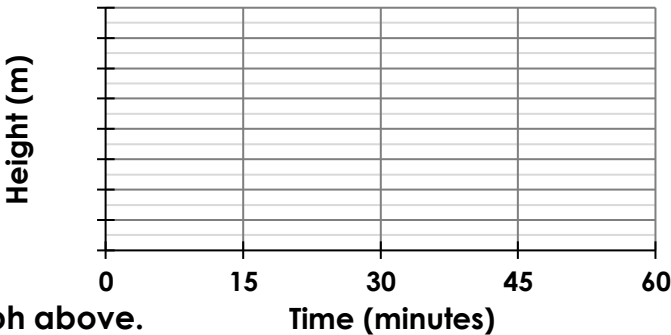
He says,



I should label increments of 100 metres on my graph to show how quickly I climbed to 800 m.

Time (mins)	0	15	30	45	60
Height (m)	0	150	300	550	800

The Height Climbed by Harvey in an Hour



Is he correct? Prove it by using the line graph above.  
Is there a more efficient scale to use?

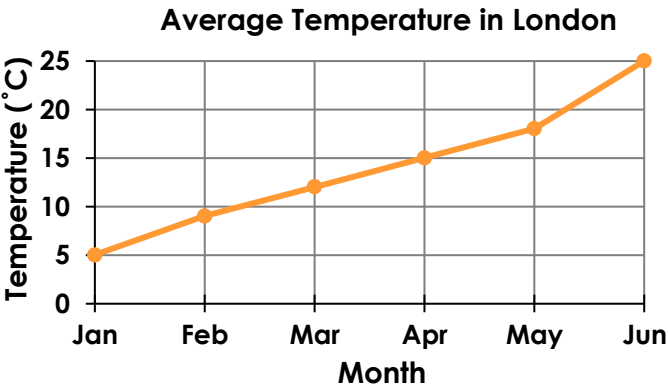


RPS  
HW/Ext

# Draw Line Graphs

7. The line graph below shows the average temperature in London over 6 months. Circle the error/s plotted on the line graph.

Month	Temperature (°C)
Jan	5
Feb	3
Mar	9
Apr	15
May	18
June	25

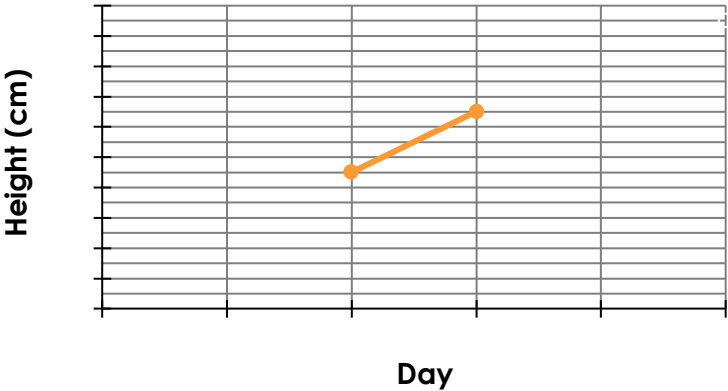


VF  
HW/Ext

8. The table below shows the growth of a bush over a month. Complete the line graph below to represent the missing data.

Day	Height (cm)
5	6
10	14
15	18
20	26
25	32
30	38

The Growth of a Bush From Day 5 to Day 30 Within a Month



VF  
HW/Ext

9. Ruby has recorded the height she climbed up a mountain during one hour.

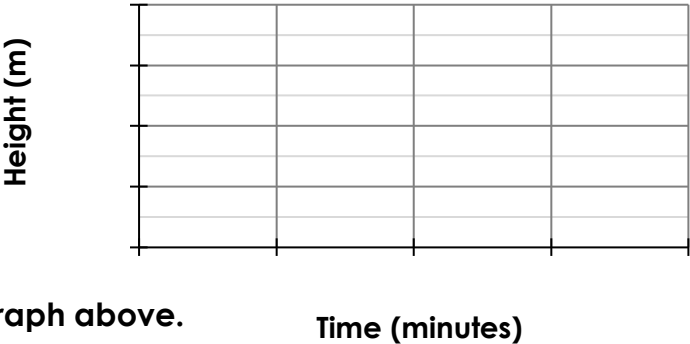
She says,



I should label increments of 250 metres on my graph to show how quickly I climbed to 1,200 m.

Time (mins)	0	15	30	45	60
Height (m)	0	450	750	1,050	1,200

The Height Climbed by Ruby in an Hour



Is she correct? Prove it by using the line graph above.  
Is there a more efficient scale to use?



RPS  
HW/Ext

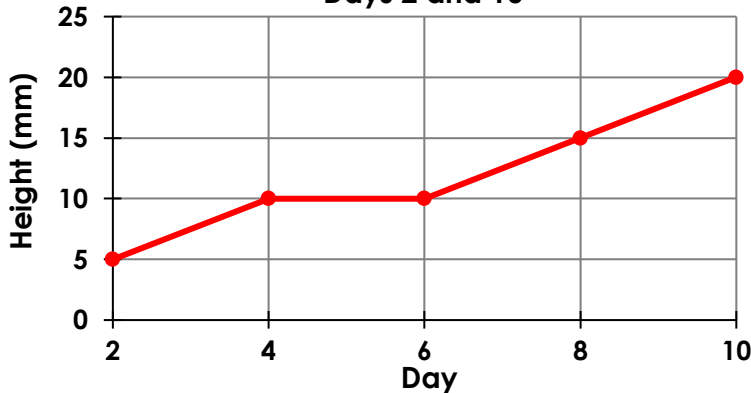
## Homework/Extension

### Draw Line Graphs

#### Developing

1. The average temperatures for March and April are plotted incorrectly.

2. The Growth of a Flower Between Days 2 and 10



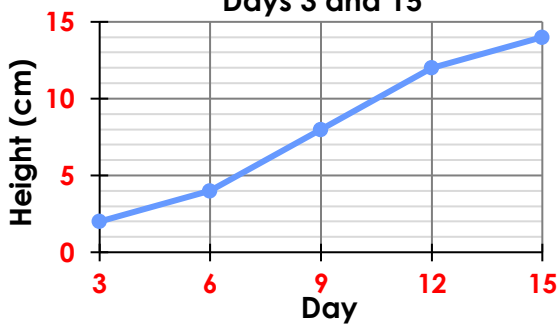
3. Various answers, for example:

Gracie is incorrect. It is not possible to use increments of 1 metre on the graph Gracie is using because the distance at 30 seconds cannot be shown. She should use increments of 2 metres. She can estimate when plotting 17 cm.

#### Expected

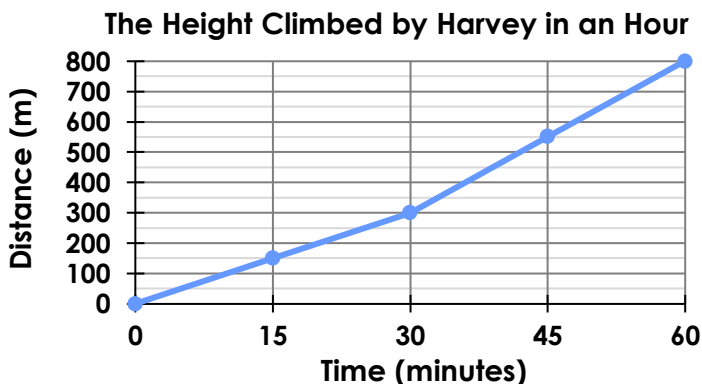
4. The average temperatures for March and May are plotted incorrectly.

5. The Growth of a Plant Between Days 3 and 15



6. Various answers, for example:

Harvey is correct. The completed line graph (shown below) will show the point at which he climbed 800 m.



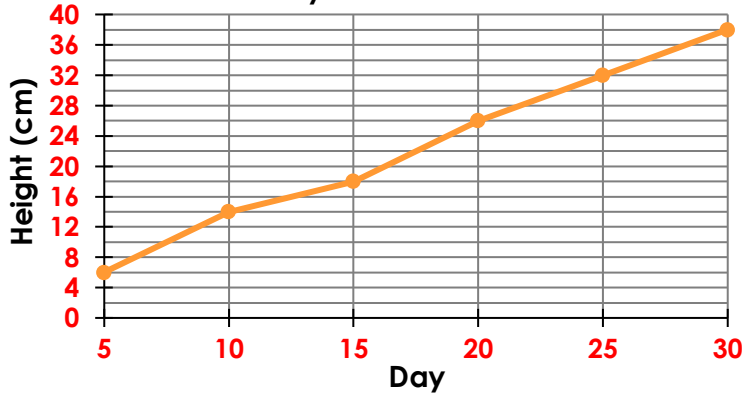
## Homework/Extension

### Draw Line Graphs

#### Greater Depth

7. The average temperatures for February and March are plotted incorrectly.

8. The Growth of a Bush From Day 5 to  
Day 30 Within a Month



9. Various answers, for example:

Ruby is incorrect. The most efficient scale would be labelling increments of 300 m to plot the data the most accurately.

The Height Climbed by Ruby in an Hour

