

# Stem and leaf diagrams

Maths

Miss Davies



# Stem and leaf diagrams

1. The stem and leaf diagram shows the heights of some sunflowers.

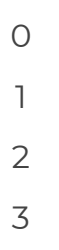


- a) How many sunflowers were measured?
- b) How tall is the tallest sunflower?
- c) How many were taller than 3 m?
- d) What is the range of the heights?

2. Here are students scores for a maths test.

12 22 9 15 7 8 13 35 23 21  
10 17 20 13 6 26 31 28 20 7

Draw an ordered stem and leaf diagram for the students' scores.



What is the median score?



# Stem and leaf diagrams

3. The back to back stem and leaf diagram shows the ages of members of two choirs.

Choir A

Key  $3|2$  means  
23 years



Choir B

Key  $3|2$  means  
32 years

a) Which group has the highest median?

b) Which group has the highest range?



# Stem and leaf diagrams

4. The stem and leaf diagram shows the money 15 students spend on bus fare each week.



Another student is asked what they spend. They spend £23

Decide whether the statements are true or false.

- The median will change.
- The range will increase.
- The mean will decrease.

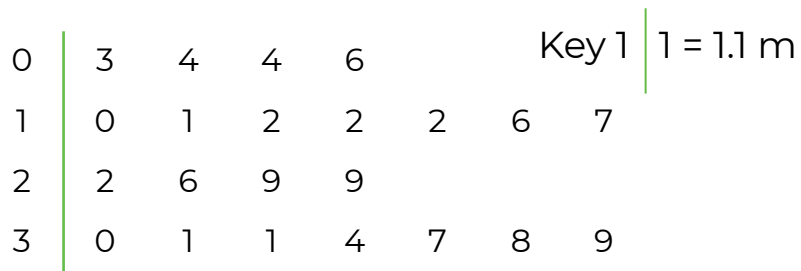


# Answers



# Stem and leaf diagrams

1. The stem and leaf diagram shows the heights of some sunflowers.

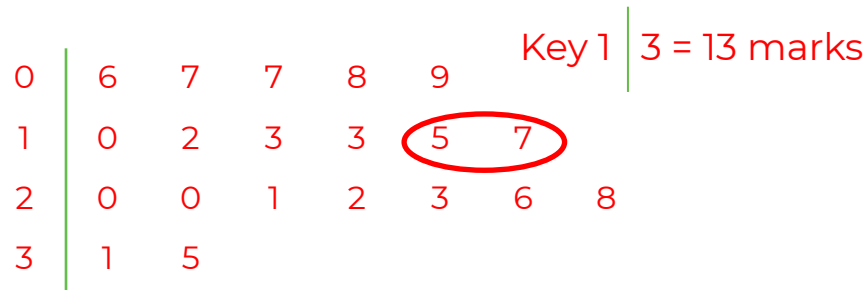


- a) How many sunflowers were measured? **22**
- b) How tall is the tallest sunflower? **3.9 m**
- c) How many were taller than 3 m? **6**
- d) What is the range of the heights? **3.6 m**

2. Here are students scores for a maths test.

12 22 9 15 7 8 13 35 23 21  
10 17 20 13 6 26 31 28 20 7

Draw an ordered stem and leaf diagram for the students' scores.



What is the median score? **16 marks**



# Stem and leaf diagrams

3. The back to back stem and leaf diagram shows the ages of members of two choirs.

Choir A

Choir B

		9	5		2		2			
9	7	7	3		3		2	3	3	
	4	1	1		4		6	7	8	
5	3	3	2		5		0	0	2	3
			2		6		0	1	3	
		4	3		7		3	5		

a) Which group has the highest median?  $A = 42.5$  and  **$B = 50$**

b) Which group has the highest range?  $A = 49$  and  **$B = 53$**



# Stem and leaf diagrams

4. The stem and leaf diagram shows the money 15 students spend on bus fare each week.



Another student is asked what they spend. They spend £23

Decide whether the statements are true or false.

- The median will change. **True**
- The range will increase. **False**
- The mean will increase. **True**

