S2

CFE Level 3

Working at Home Workbook

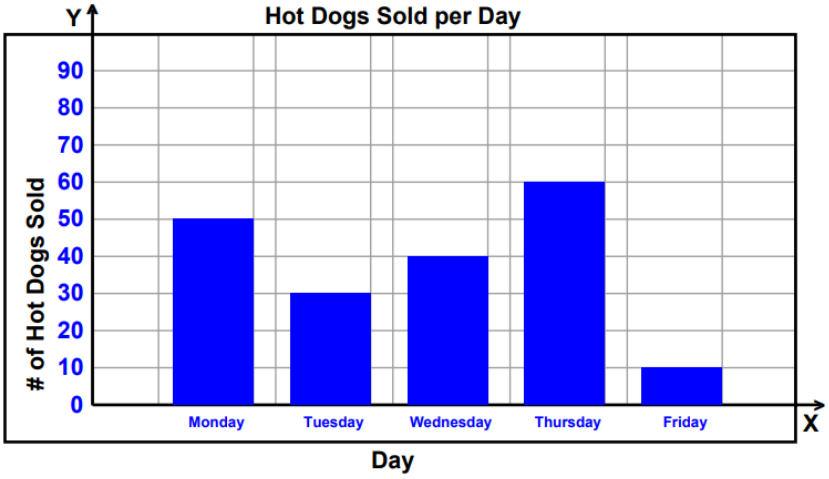
Statistics

Learning Intention. To be able to -
How to interpret and draw a bar graph & a line graph
Interpret and construct a pie chart
Use a protractor to construct a pie chart
Calculate the range and the mean from a set of data
Find the median and the mode
Interpret and construct a stem & leaf diagram

How to interpret and draw a bar graph & a line graph

Question 1

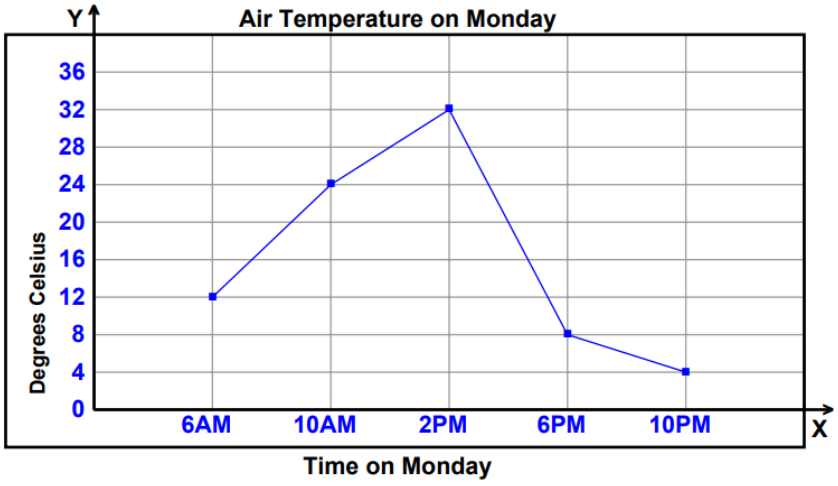
Answer the following questions based of the bar graph



- How many hot dogs were sold on Monday?
- How many hot dogs were sold on Wednesday?
- Did the number of hot dogs sold increase or decrease between Tuesday and Wednesday?
- Were more hot dogs sold in Friday or Tuesday?
- Which day the fewest number of hot dogs sold?

Question 2

Graph the given information as a line graph.

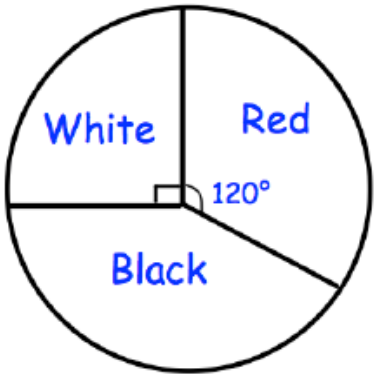


- What was the air temperature at 10pm?
- What was the air temperature at 6am?
- Did the temperature increased or decreased between 6am and 10 am?
- Was the temperature higher at 2pm or 6pm?
- At what time was the temperature at the lowest?

Interpret and construct a pie chart

Question 1

A bag contains red, white a black counters. The pie chart shows information about the counters in the bag.



(a) What fraction of the counters are white?
Give your answer in its simplest form.

(b) What fraction of the counters are red?
Give your answer in its simplest form.

There are 24 counters in the bag.

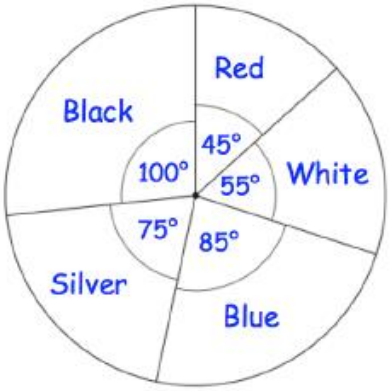
(c) Work out how many counters are black.

Question 2

The pie chart shows the colours of cars in a car park.

(a) What is the most common colour of car in the car park?

(b) What is the least common colour of car park?

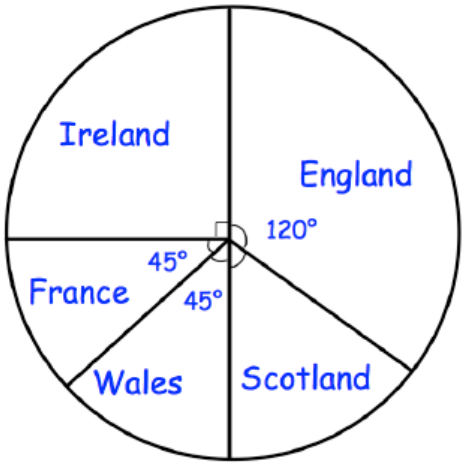


Question 3

A group of football fans were asked who they supported. The pie chart and table show information about who they support.

Use the pie chart to complete the table.

Team	Angle of sector	Number of fans
England	120°	
France	45 °	
Ireland		12
Scotland		
Wales	45 °	



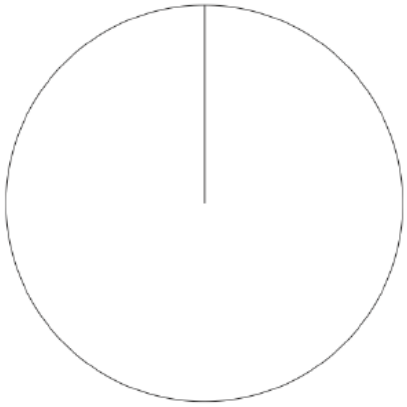
Use a protractor to construct a pie chart

Question 1

The table gives information about the holiday destination of 24 students in a class.

Country	Frequency	Fraction	Angle
France	6		
Scotland	7		
Spain	11		
Total:			360°

Construct an accurate pie chart showing this information

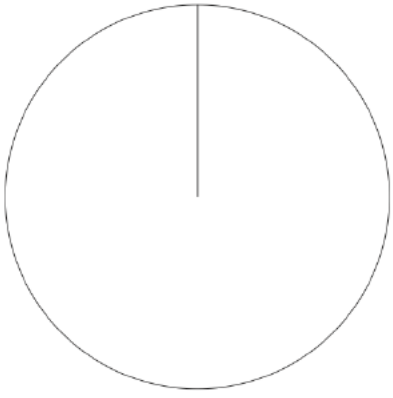


Question 2

A table give information about the number of pupils in years S1 to S4

Year	Frequency	Fraction	Angle
S1	200		
S2	140		
S3	220		
S4	160		
Total:			360°

Construct an accurate pie chart showing this information



Calculate the range and the mean from a set of data

Question 1

Find the MEAN and the RANGE of the following:

(a) 2, 5, 4, 8, 7, 3

(b) 19, 42, 55, 81, 36

(c) 11, 13, 11, 16, 18

(d) 3.6, 3.3, 4.5, 4.4, 6.6

Question 2

Martin is a computer games whiz kid.

He completed each level in the following times (in minutes):

9.1, 8.8, 8.9, 7.9, 10.3, 9.6, 10

What was his mean time per level?

Question 3

The number of people who visited a Christmas market during the first 3 hours are the following

36, 45, 65, 58, 39, 40, 56

What is the range of the given data?

Find the median and the mode

Question 1

Find the median for each set of numbers:

(a) 36, 25, 42, 12, 54
(b) 65, 77, 42, 12, 33, 10
(c) 45, 12, 66, 42, 31, 89, 77
(d) 7, 20, 101, 73, 46, 34

Question 2

Jane's Science book has ten chapters. The number of pages in each chapter is given below. What is the median?

25, 11, 9, 18, 24, 16, 13, 30, 12

Question 3

Find the mode for each set of numbers:

(a) 88, 82, 81, 89, 77, 95, 89, 77, 90, 81, 75
(b) 76, 75, 74, 72, 59, 62, 77, 64, 72, 71, 71
(c) 82, 82, 68, 71, 68, 86, 67, 71, 75, 66
(d) 38, 47, 56, 38, 56, 44, 48, 55, 42, 38, 36, 38

Interpret and construct a stem & leaf diagram

Question 1

Use the stem and leaf plot to answer these questions.

History Test Scores

Stem	Leaf
6	1 1 4 6 7 8
7	2 3 5 7 9
8	1 3 5 6 6 7 7 8 9
9	0 0 3 4 6 8 9 9
10	0 0

1. What is the best test score?
2. How many students took the test?
3. How many students score 90?
4. What is the lowest score?
5. Find the difference between the high and low scores.

Question 2

Make a stem and leaf diagram of the data.

AGES: 12, 17, 15, 14, 19, 17, 13, 16, 15, 16, 17, 18, 24, 23, 28, 45, 48, 36, 12, 23, 15, 14, 13, 15, 17, 18, 19, 15, 15, 16, 16, 16, 16, 17

1. How many people attended a gymnastic meet?
2. What are ages of the youngest and oldest persons attending?
3. Which age group was more widely represented?