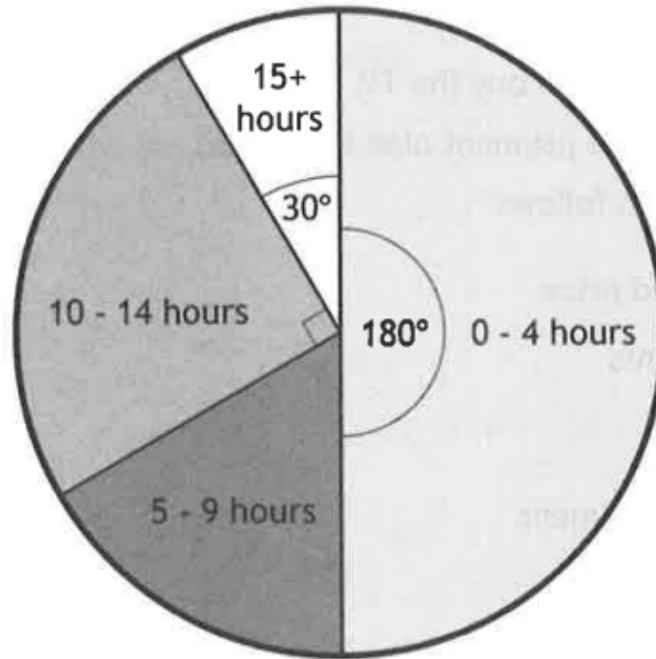# Pie Charts

Applications of Mathematics Exam Questions

(1) The pie chart shows the number of hours overtime that 72 employees of a supermarket worked during one month.
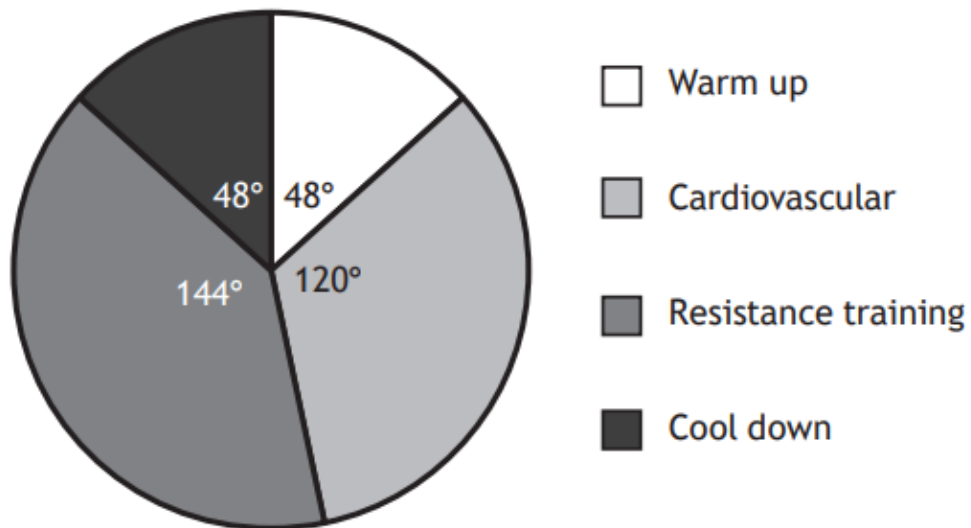

(a) Calculate how many employees worked 15+ hours overtime.

(b) Calculate the probability that an employee chosen at random worked 9 or less hours overtime.

Source: 2019 P1 Q3 N5 Applications of Mathematics

(2)

Nicola has joined a gym.

The pie chart shows the proportion of time that Nicola will spend on each type of workout exercise.

Types of workout exercises

☐ Warm up

☐ Cardiovascular

☐ Resistance training

☐ Cool down

Nicola spent 1 hour and 45 minutes exercising in the gym.

(a) Calculate how long, **in minutes**, Nicola spent on resistance training.
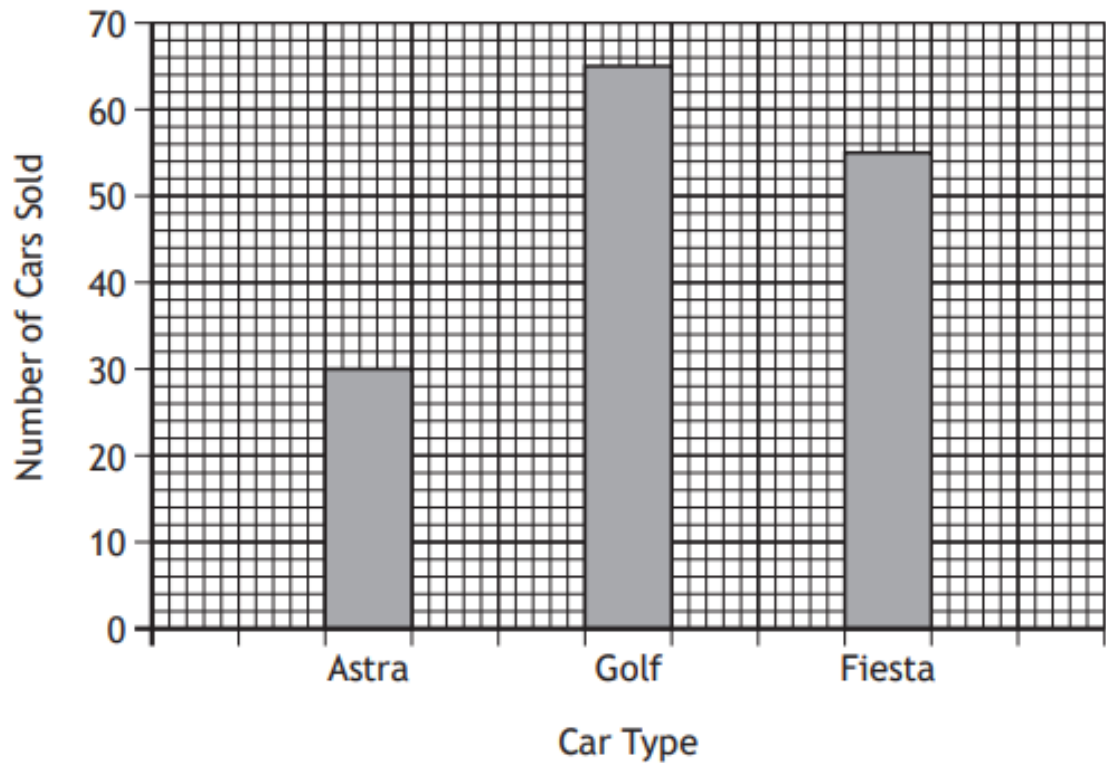
Nicola spent 21 minutes exercising on a treadmill.

Her average speed was 6·6 km/h.

(b) Calculate the distance she ran on the treadmill.

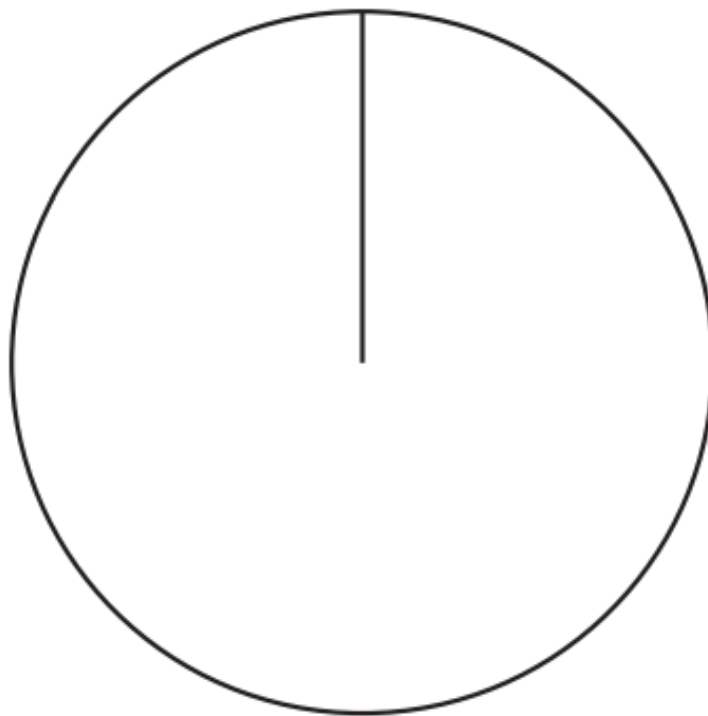Source: 2018 P2 Q4 N5 Applications of Mathematics

(3) A garage sells 150 cars in a month.

The bar chart below shows how many cars of each type are sold.

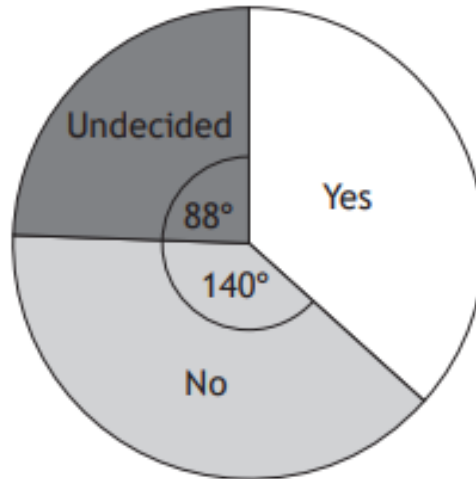Construct a pie chart to show this information.

(4) In September 2014 there was a referendum to determine the future of Scotland.

An opinion poll was taken in December 2013.
The question asked was "Should Scotland be an independent country?"

The results are shown in the pie chart below.

Another opinion poll was taken in April 2014.
1208 people were asked the same question as in December 2013.

The results of this poll are shown in the table below.

YES	NO	UNDECIDED
447	616	145

Compare the two opinion polls and make one relevant comment on the differences between them.