A spa has three different treatment packages; bronze, silver and gold. A spa has 485 customers one week. 30% select the bronze package. 46% select the silver package. Calculate the number of customers who selected the gold package.

Ben runs a coconut stall. One day he gives away 75 coconuts as prizes. The next day he gives away 93 coconuts as prizes. Work out the percentage increase in the number of coconuts he has to give away as a prize.

A market stall buys 150 bags for £5.60 each. The store sells 45% of the bags for £9.50 each. The remaining bags are later sold at a reduced price of £5 each. How much profit or loss did the stall make?

In a shop, the normal price of a jacket is £85. The shop has a sale. In the first 5 days of the sale, the price of the jacket is reduced by 30%. In the last two days of the sale the jacket is reduced by a further £15. Isobel has £45. Does Isobel have enough money to buy the jacket on the 6th day of the sale?

A rectangle has dimensions x mm and y mm. x is increased by 20%, y is decreased by 5%. Work out the percentage change in the area of the rectangle.

The maximum depth of an ice sheet called the ‘Terre Adélie’ in Antarctica is D metres given by

\[ D = 4776 \times 0.995^y \]

a) Explain how you know the ice sheet is decreasing in depth.

b) After how many complete years (y) will the ice sheet’s depth be below 4.7km.