

## A Level Business – Initial Numeracy Assessment - Questions

Q1	<p>Balti Towers is an Indian takeaway that also offer a delivery service. Last year, the business delivered 1,400 curries. This year, the owner estimates that they will deliver 1,512 curries.</p> <p>Calculate the estimated percentage increase curry deliveries.</p>
<p><b>Your workings:</b></p>	

Q2	<p>School of Choc is a confectionary manufacturer located in County Durham. The business employs 120 staff. The ratio of male to female staff is 2:3.</p> <p>Calculate how many female staff School of Choc employs.</p>
<p><b>Your workings:</b></p>	

Q3	<p>Jimmy Chews is a sweet shop located in Wetherby. This year, the owner estimates that the business, which also sells soft drinks, will sell 3,360 cans of coca cola, 5% more than last year.</p> <p>Calculate how many cans of coca cola Jimmy Chews sold last year.</p>
<p><b>Your workings:</b></p>	

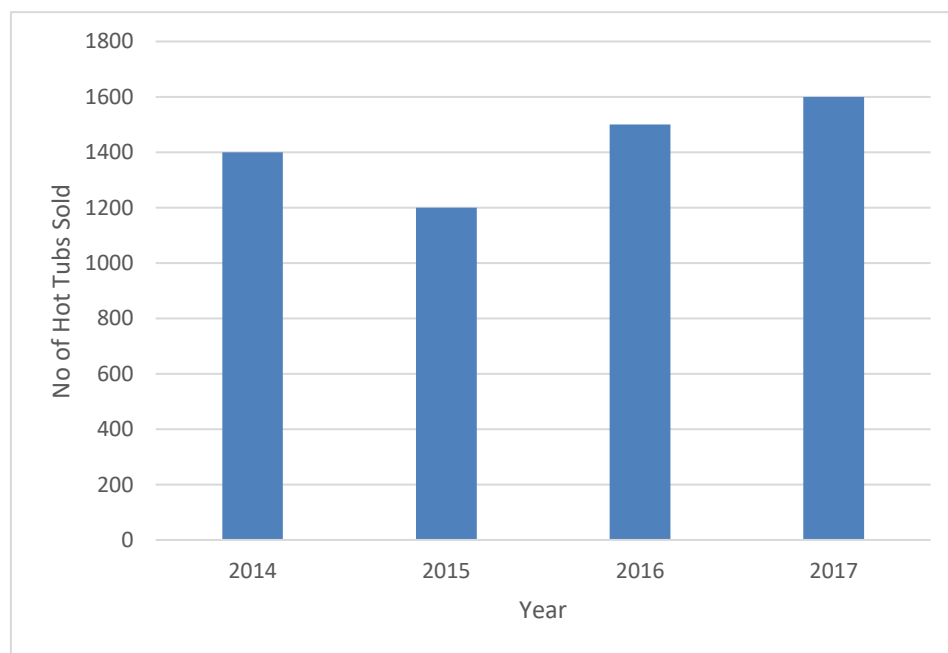
## A Level Business – Initial Numeracy Assessment - Questions

Q4	<p>Bubblicious is a hot tub manufacturer located in Chester. Their hot tubs retail for £4,500. The manufacturing cost per hot tub is <math>\frac{2}{5}</math> of the selling price.</p> <p>Calculate the cost of manufacturing one hot tub.</p>
----	-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

**Your workings:**

Q5	<p>The chart below shows the number of hot tubs Bubblicious sold between 2014 and 2017. The owner estimates that in 2018, hot tub sales will be 5% lower than in 2017.</p>
----	----------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Calculate the average annual sales of hot tubs between 2014 and 2018.



**Your workings:**

## A Level Business – Initial Numeracy Assessment - Questions

Q6	Melchester Rovers Football Club can seat 42,000 spectators. Last week, when they played Harrogate Town, there were 36,960 spectators.  Calculate the percentage of empty seats.
----	---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

**Your workings:**

Q7	A family of four, on holiday in the UK from Spain, visited the 'Whale of a Time' sea life centre in London. The total entrance cost for the family was £90.  Assuming an exchange rate of £1: €1.08, calculate the total entrance cost in Euros.
----	--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

**Your workings:**

Q8	Loft in Space, a manufacturer of loft insulation, took 80 of its employees on a two-day team building trip to an outdoor activity centre in the Lake District. The total cost of the trip was £9,600. The accommodation cost per employee was $\frac{3}{5}$ of the total cost per employee.  Calculate the accommodation cost per employee.
----	---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

**Your workings:**

Q9	Tea-Total is a café in Cumbria. Below is a pie chart showing the percentage of drinks purchased for a group of 200 customers.
----	-------------------------------------------------------------------------------------------------------------------------------

## A Level Business – Initial Numeracy Assessment - Questions

	<p style="text-align: center;">Tea-Total</p> <table border="1"><thead><tr><th>Beverage</th><th>Percentage</th></tr></thead><tbody><tr><td>Tea</td><td>15%</td></tr><tr><td>Coffee</td><td>45%</td></tr><tr><td>Cappuccino</td><td>30%</td></tr><tr><td>Latte</td><td>10%</td></tr></tbody></table> <p>(A) Calculate how many customers purchased a coffee</p> <p>(B) Calculate how many customers did not purchase a tea</p> <p>(C) Calculate the fraction of customers that purchased a Latte</p>	Beverage	Percentage	Tea	15%	Coffee	45%	Cappuccino	30%	Latte	10%	
Beverage	Percentage											
Tea	15%											
Coffee	45%											
Cappuccino	30%											
Latte	10%											
<p><b>Your workings:</b></p>												

Q10	<p>Graham Riley is an employee of Father Treads, a business that specialises in car tyres. Graham attends a meeting at Head Office, travelling 60 kilometres each way. Graham is entitled to claim travel expenses at 45p per mile.</p> <p>Based on the assumption that 10 kilometres is equivalent to 6 miles (approximately), calculate how much Graham is entitled to claim.</p>
-----	-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

## A Level Business – Initial Numeracy Assessment - Questions

*Your workings:*

Q11	<p>Car-tastrophe is a car showroom based in Stanhope. The business consists of one manager and 3 salesman, Jim, Jon and Joseph. Each month, a sum of money is paid as a bonus and is divided in the ratio of the number of cars each salesman has sold. Jim sold 7 cars, Jon sold 8 cars and Joseph sold 9 cars. Joseph received £1,125</p> <p>Calculate how much money Jim and Jon received.</p>
-----	---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

*Your workings:*

Q12	<p>Barber Streisand is a hair dressing salon located in Sunderland. The owner Barbara, recently introduced a new system of rewarding her staff. At the end of the week, Barbara puts the following in a bag:</p> <p>5 x £10 notes 4 x £20 notes 3 x £50 notes</p> <p>At the end of the week, the hairdresser who has provided the best service can select a note from the bag as a reward.</p> <p>Calculate the probability of not selecting a £10 note.</p>
-----	----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

## A Level Business – Initial Numeracy Assessment - Questions

**Your workings:**

Q13 Frame, Set and Match is a picture framing business with several shops across the North East of England. The business has a total of 90 employees, of which 54 are female.

Calculate, in the lowest possible terms, what fraction of the total employees are male.

**Your workings:**

Q14 Wooden it be Lovely is a small manufacturer of wooden children's toys. Last week, the business produced 32,000 toys, of which 40% were checked for quality. Of the 40% checked,  $\frac{1}{5}$  had a defect.

Calculate how many wooden toys were found to not have a defect.

**Your workings:**

## A Level Business – Initial Numeracy Assessment - Questions

Q15	<p>Sparked Out is a retailer of electrical products located in County Durham. The owner, Joseph Sparks, is analysing the sales figures of two product lines, the Lavazza coffee machine and the Breville toaster.</p> <p>In 2017, the total value of Lavazza coffee machine sales was £12,100 whilst the total value of Breville toaster sales was £5,292. Joseph noticed that the sales of Lavazza coffee machines have been increasing by 10% per year, whilst sales of Breville toasters have been increasing by 5% per year, over the last two years.</p> <p>Calculate the total sales value of Lavazza coffee machine sales and Breville toasters in 2015.</p>
-----	---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

**Your workings:**