



Year 12
Summer Task

For Business Studies

Name

Section 1 – General Numeracy

Start on the left with the number given and follow the instructions as you go across

Questions 1 - 6

30	÷5	Times itself	+3	÷3	X10	+3	÷7	X2	+7	=
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99	9/11 of it	2/3 of it	+30	5/6 of it	+90	X5	13/100 of it	+40	7/9 of it	=
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42	x 2½	25% of it	X 8	11/14 of it	50% of it	-49	325% of it	15/35 of it	X15	=
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3	X9	+5	¼ of it	X50	+20	÷ 6	Double it	-8	÷ 11	=
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6	+18	7/8 of it	X12	-20	3/8 of it	+8	2/5 of it	Double it	25% of it	=
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89	X5	-423	Squared	-79	20% of this	+67	X3	-378	X4	=
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Question 7

Chaba Thai is a takeaway shop that also offers a delivery service. Last year, the business delivered 1,400 meals. This year, the owner estimates that they will deliver 1,512 meals. Calculate the estimated percentage increase in deliveries.

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Question 8

Heavenly Sweets is a confectionery manufacturer located in Hampshire. The business employs 120 staff. The ratio of male to female staff is 2:3. Calculate how many female staff Heavenly Sweets employs.

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Question 9

Baguetti Junction is a Baguette shop located in Winchester. 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. Calculate how many cans of coca cola Baguetti Junction sold last year.

Question10

Soap and Bubbles is a hot tub manufacturer located in Swindon. Their hot tubs retail for £4,500. The manufacturing cost per hot tub is $\frac{2}{5}$ of the selling price. Calculate the cost of manufacturing one hot tub.

Question 11

Luton Town Football Club can seat 42,000 spectators. Last week, when they played Milton Keynes Dons there were 36,960 spectators. Calculate the percentage of empty seats.

Question 12

A family of four, on holiday in the UK from France visited the Hunstanton sea life centre. The total entrance cost for the family was £90. Assuming an exchange rate of £1: €1.08, calculate the total entrance cost in Euros.

Question 13

A manufacturer of mattresses, 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 was $\frac{3}{5}$ of the total cost per employee. Calculate the accommodation cost per employee.

Section 2 – Puzzle Time

Question 14

What is the largest sum of money you can have in coins, and still not be able to give someone exactly ten pounds?

Question 15

A palindrome is an expression that reads the same forward and back.
A palindrome time is a time - expressed in hours, minutes, and seconds - that is the same forwards and backwards, like 3:59:53.

There are 660 palindrome times using a 24 hour clock. What two are the nearest to each other?

Question 16

A caterpillar crawls to a vegetable patch at a speed of nine metres per hour. After overindulging the caterpillar returns, over exactly the same distance, at three metres per hour. What is the caterpillar's average speed over the entire journey?

Section 3. - The Measurement of Profit.

Question 17

JJ Sports sold 250,000 wrist bands priced at £2.50 each. Total costs were £125,000.

Calculate how much profit was made

Question 18

Lynn's Coffee shop charges £1.80 for a cup of coffee. The variable cost per cup is £0.20 and monthly fixed costs are £2,000. Last month, the business sold 2,300 cups of coffee.

Calculate how much profit was made last month

Question 19

A Radio manufacturer sells its products to retailers for £120 each. Variable costs are two fifths of the selling price, with monthly fixed costs being £75,000. The manufacturer sells 1,400 radios per month. Calculate the yearly profit of the business.

Question 20

Steve's Flip Flops will make a profit of £250,000 this year. Steve estimates that he will sell 150,000 units, with a selling price of £10 per unit. Variable costs per unit are 25% of the selling price. Calculate the estimated fixed costs of the business.

Question 21

Last month a garden centre sold 910 pots of flowers making a profit of £2,005. Fixed costs are £3,000 per month and the selling price of each pot is £7.50. Calculate the variable cost of a pot of flowers.

Question 22

A business made a profit last year of £50,000. Fixed costs were £200,000 and the variable cost per unit was £25. The business sold 10,000 units. Calculate the selling price per unit.

Question 23

Next year a business estimates it will sell 25,000 units at a selling price of £12 per unit. Variable costs per unit are one third of the selling price and the business estimates that the business will make a profit of 80,000. Calculate the fixed costs of the business for next year.

Section 4 – Cash Flow Forecasts

Inflows = money flowing into the business

Outflows = money flowing out of the business

Net cash flow = inflow – outflow

Closing balance = opening balance + Net cash flow

Question 24

A business estimates that in August, its total inflows will be £10,000 and its total outflows will be £4,000. The closing balance in July was £8,000. Calculate the closing balance for August.

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Question 25

Below is a cash flow forecast for a small business. Complete the cash flow forecast by calculating the missing figures.

	<i>January</i>	<i>February</i>	<i>March</i>
Cash Inflows	£10,000		£13,000
Cash Outflows		£5,000	£5,500
Net Cash Flow	£6,000	£7,000	
Opening Balance	£3,000		£16,000
Closing Balance		£16,000	

Question 26

The owners of a business are drawing up a cash flow forecast for January, February and March. They estimate that in January, revenue will be £20,000. This is expected to rise by 25% each month up to and including March; this is due to the owners spending £4,000 on Marketing in January. They pay out £6,250 per month on wages. A loan repayment of £1,050 is due in February and March. Additional costs per month equal to 15% of monthly revenue. With an opening balance of £15,000. Using all this information, complete the cash flow forecast.

	January	February	March
Inflows			
Revenue			
Total Inflows			
Outflows			
Marketing			
Wages			
Loan Repayments			
Additional Costs			
Total Outflows			
Net cash flow			
Opening Balance			
Closing Balance			

Section 5 – Break-even Analysis and ROCE

Question 27

A Donut business pays £50 for a stand at a local market on a Saturday. The selling price per donut is £2.50 and the variable cost per donut is £1.25. Calculate the breakeven point.

Question 28

Joe is assessing the viability of opening a new Baguette takeaway business and wishes to calculate the weekly break-even point. He estimates that his fixed costs will be £600 per week. The average selling price of each Baguette will be £4 and his variable cost per unit will equal 50% of the selling price. He anticipates that he will sell 200 Baguettes per day and the business will be open 6 days a week. Using this information, complete the table below and construct a weekly breakeven chart for the business.

Units	Total Revenue	Variable Costs	Fixed Costs	Total Costs
0				
200				
400				
600				
800				
1,000				
1,200				

Question 29

Using the break-even chart, state the weekly breakeven point of the business. (Where $TC=TR$)

Question 30

A business has operating profit of £4 Million and capital employed of £20 Million. Calculate the return on capital employed of the business. (look up the ROCE formula on Tutor 2 U)