Year 11 Paper 2 Formulas

Sales revenue	
Total variable costs	
Gross profit	
Gross profit margin	
Total costs	
Net profit	
Net profit margin	
Breakeven	
Average rate of return	
Average cost	
Percentage change	
Market share	

Task 1-Sales Revenue and Costs

Complete the table

Selling price £30

Variable costs £5

Fixed costs £5000

Output	Sales Revenue	Total Variable	Fixed	Total Costs
100				
200				
300				
400				
500				
600				
700				
800				
900				
1000				

Task 2-Gross and Net Profit

Complete the table

Selling Price £45

Output 10 000

Variable cost per item £8

Fixed costs £10 000

Sales revenue	
Total Variable Cost (cost of sales)	
Gross profit	
Total Fixed costs	
Net profit	

Task 3-Gross and Net Profit and Margin

Complete the table

Selling Price £70

Output 10 000

Variable cost per item £25

Fixed costs £20 000

Sales revenue	
Total Variable Cost (cost of sales)	
Gross profit	
Gross profit margin	
Total Fixed costs	
Net profit	
Net profit margin	

Task 3-Gross and Net Profit and Margin and Comparison

Complete the table

	Year 1	**Year 2**
Sales revenue	**£500 000**	**£700 000**
Total Variable Cost (cost of sales)	**£120 000**	**£160 000**
Gross profit		
Gross profit margin		
Total Fixed costs	**£50 000**	**£60 000**
Net profit		
Net profit margin		

1. **What has happened to GPM between year 1 and 2? Explain?**

2. **What has happened to NPM between year 1 and 2? Explain?**

Task 4-Sales Revenue, Costs and Breakeven

Complete the table

Selling price £40

Variable costs £10

Fixed costs £6000

Output	Sales Revenue	Total Variable	Fixed	Total Costs
100				
200				
300				
400				
500				
600				
700				
800				
900				
1000				

1. Breakeven is when……

2. The break even point is when …… and …… are the same value.

3. Breakeven is measured in……

4. The breakeven point in this question is?

5. Use the breakeven formula to check your answer to question 4.

Task 5-Breakeven Graph

Selling price- £6

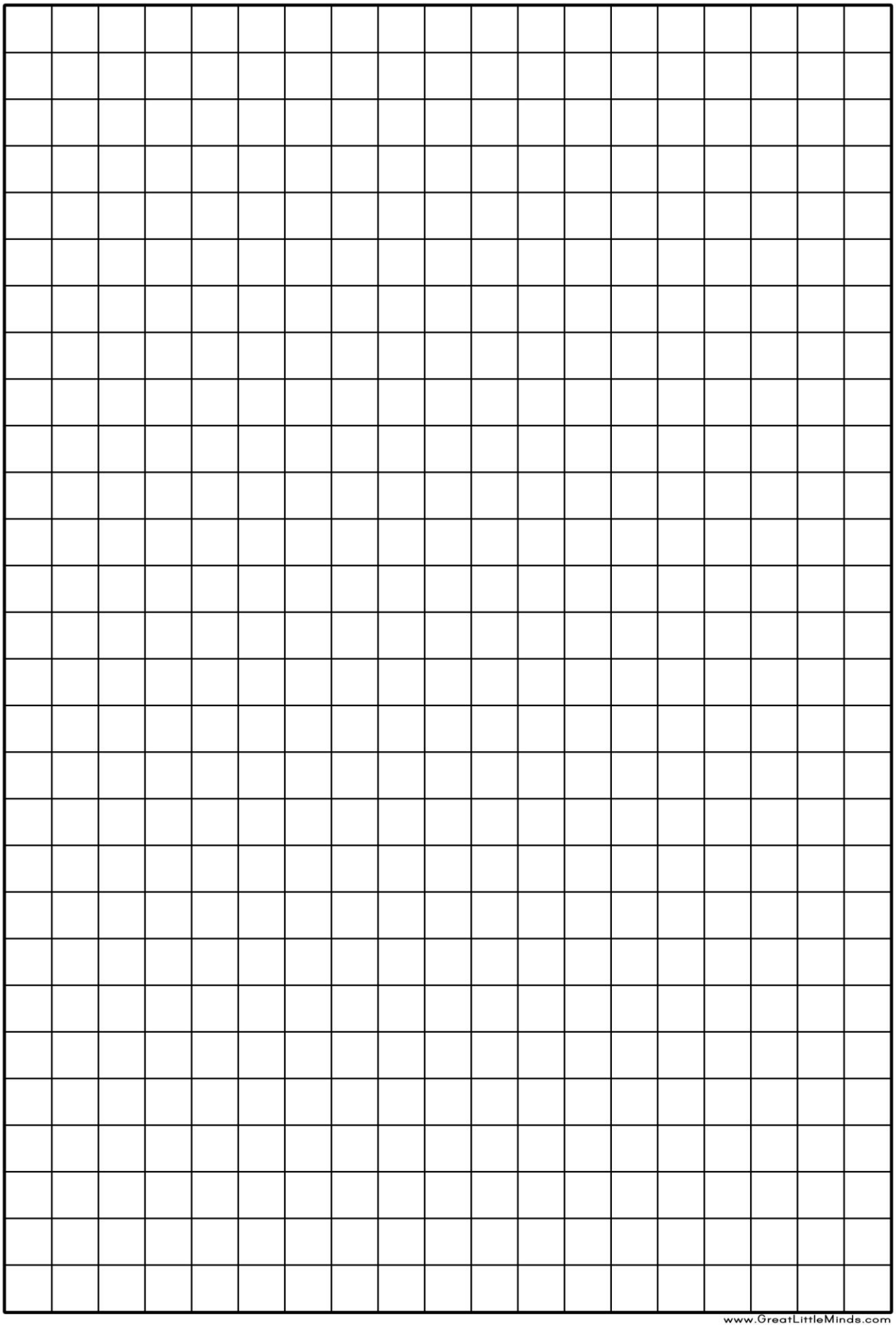
Variable cost- £2

Fixed costs £1000

Output	Sales Revenue	Total Variable	Fixed	Total Costs
100				
200				
300				
400				
500				
600				
700				
800				
900				
1000				

Using the table-where is the breakeven point?

Using the formula where is the breakeven point?



Task 6-Market Share

Calculate each firms market share

Firm A	**Sales £200 000**	
Firm B	**Sales £110 000**	
Firm C	**Sales £150 000**	
Firm D	**Sales £220 000**	

Calculate each firms market share

Firm A	**Sales £100 000**	
Firm B	**Sales £460 000**	
Firm C	**Sales £230 000**	
Firm D	**Sales £400 000**	
Firm E	**Sales £500 000**	

Task 7 Percentage Change

Original	New	Percentage Change
£1.50	£4.50	
£100 000	£150 000	
57	70	
£2.35	£3.05	
£230 000	£233 000	
460 000	470 000	
120 000	110 000	

Task 8 Average Cost

Complete the table

Selling price £45

Variable costs £23

Fixed costs £10 000

Output	Sales Revenue	Total Variable	Fixed	Total Costs	Average Cost
100					
200					
300					
400					
500					
600					
700					
800					
900					
1000					

What happens to average cost as your output increases?

Why do you think this happens?

Task 9 Average Rate Return

Initial cost of machinery £5000

Year	Income
1	£2000
2	£2500
3	£3000
4	£3000
5	£2500

Total income =

Total income – initial cost =

Profit / years =

Annual average profit / initial cost * 100=

Initial cost of machinery £70 000

Year	Income
1	£20 000
2	£25 000
3	£23 000
4	£20 000

ARR=

Initial cost of machinery £100 000

Year	Income
1	£35 000
2	£30 000
3	£28 000
4	£25 000

ARR=

Initial cost of machinery £250 000

Year	Income
1	£100 000
2	£110 000
3	£90 000
4	£50 000

ARR=

Task 10 Cash Flow

Fill in the shaded blanks

	October	November	December
Cash inflow			
Sales	**30 000**	**40 000**	
Total inflow	**30 000**		**55 000**
Cash outflow			
Wages		**7500**	**10 000**
Loan repayments	**3500**	**3500**	**4000**
Stock	**35 000**	**15 000**	
Total outflow	**44 500**	**26 000**	**24 000**
Net cash flow			
Opening balance	**1000**	**-13500**	**500**
Closing balance		**500**	

1. **Which month might this business need additional finance?**

2. **How much would they need?**

3. **What source of finance would you recommend and why?**

Fill in all of the boxes

	May	**June**	**July**
Cash inflow			
Sales			
Total inflow			
Cash outflow			
Wages			
Loan repayments			
Stock			
Total outflow			
Net cash flow			
Opening balance			
Closing balance			

1. **Sales in May is £40 000**
2. **They repay their loan back at a fixed rate of £500 per month**
3. **The opening balance in May is £3000**
4. **They buy £15 000 worth of stock a month**
5. **Sales are expected to decrease in June by 20%**
6. **Sales in July are £30 000**
7. **Wages cost £4000 per month**