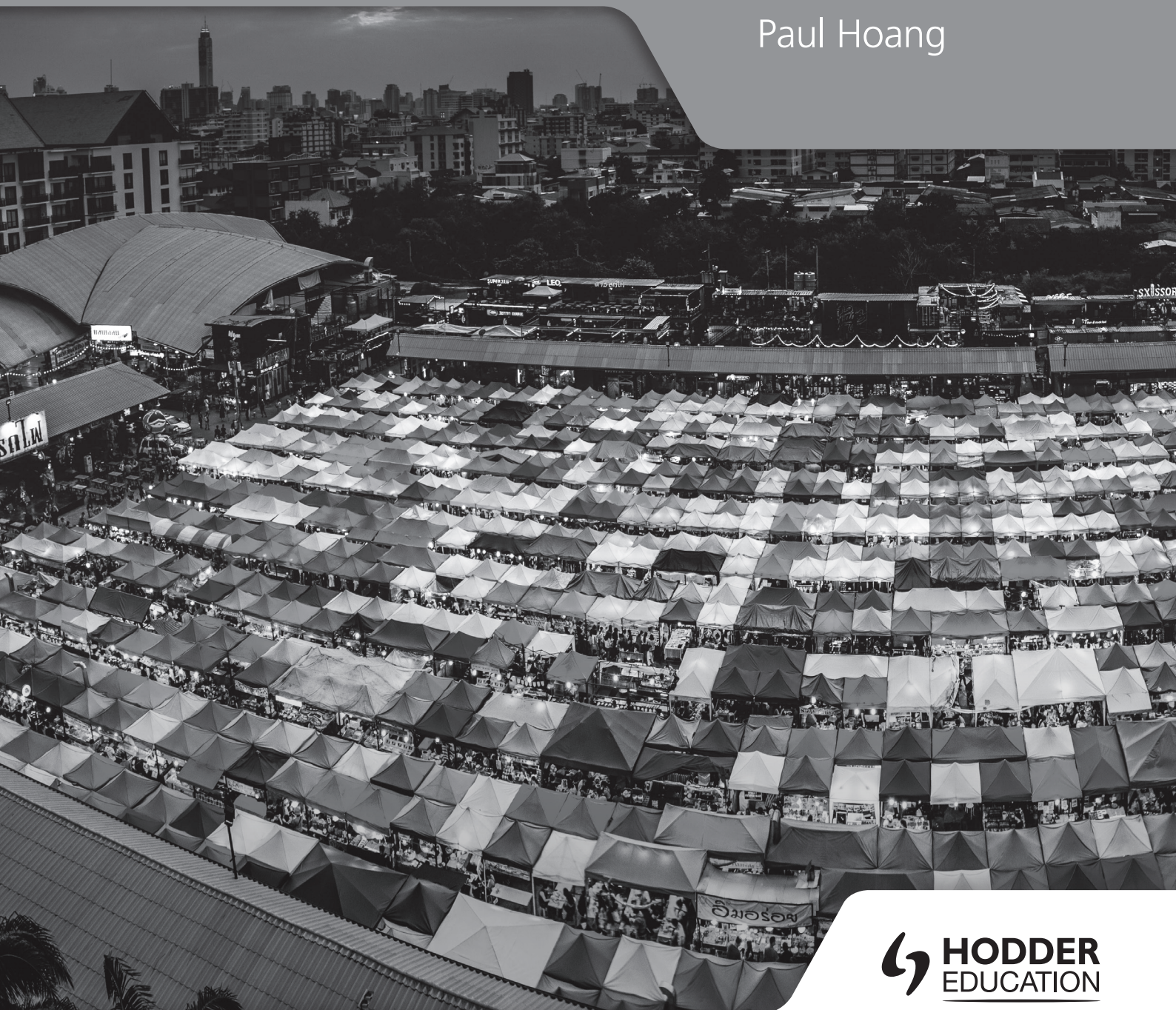


FOR THE
IB DIPLOMA
PROGRAMME

Economics

QUANTITATIVE SKILLS WORKBOOK

Paul Hoang



Calculations for Economics

The table below shows the calculations that you will need to learn and practise in preparation for the examinations. Calculations for **HL only** are shown in bold text.

Section	Calculations
2.3 Competitive market equilibrium	Consumer surplus and producer surplus from a diagram.
2.5 Elasticities of demand	PED, change in price, quantity demanded or total revenue from data provided. YED, change in income, quantity demanded from data provided.
2.6 Elasticity of supply	PES, change in price or quantity supplied from data provided.
2.7 Role of government in microeconomics	The effects on markets and stakeholders of: <ul style="list-style-type: none"> • price ceilings (maximum prices) • price floors (minimum prices) • indirect taxes and • subsidies.
2.8 Market failure – externalities and common pool or common access resources	Welfare loss from a diagram.
2.11 Market failure – market power	Profit, MC, MR, AC and AR from data.
3.1 Measuring economic activity and illustrating its variations	Nominal GDP from sets of national income data, using the expenditure approach. Nominal GNI from data. Real GDP and real GNI, using a price deflator. Real GDP per capita and real GNI per capita.
3.3 Macroeconomic objectives	The rate of economic growth from a set of data. The unemployment rate from a set of data. The inflation rate from a set of data using quantities purchased as weights in the CPI. A weighted price index, using a set of data provided.
3.4 Economics of inequality and poverty	Given the indirect tax rate, the amount of indirect tax paid from a given level/ amount of expenditure. Total tax and average tax rates from a set of data.
3.5 Demand management (demand-side policies) – monetary policy	Real interest rates from given data.
3.6 Demand management – fiscal policy	Keynesian multiplier. The effect on GDP of a change in an injection in investment, government spending or exports, using the Keynesian multiplier.
4.1 Benefits of international trade	From a diagram, the quantity of exports, quantity of imports, import expenditure and export revenue. Opportunity costs from a set of data in order to identify comparative advantage.
4.2 Types of trade protection	From a diagram, the effects on stakeholders of tariffs. From a diagram, the effects on stakeholders of quotas. From a diagram, the effects on stakeholders of subsidies.
4.5 Exchange rates	Using exchange rates, the price of a good in different currencies. Changes in the value of a currency from a set of data.
4.6 Balance of payments	Elements of the balance of payments from a set of data.

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Unit 2 Microeconomics

2 Demand

- 1 The demand for organic free-range chicken has increased. However, the cost of supplying organic free-range chicken to supermarkets has also increased.

a Define the term *demand*.

[2]

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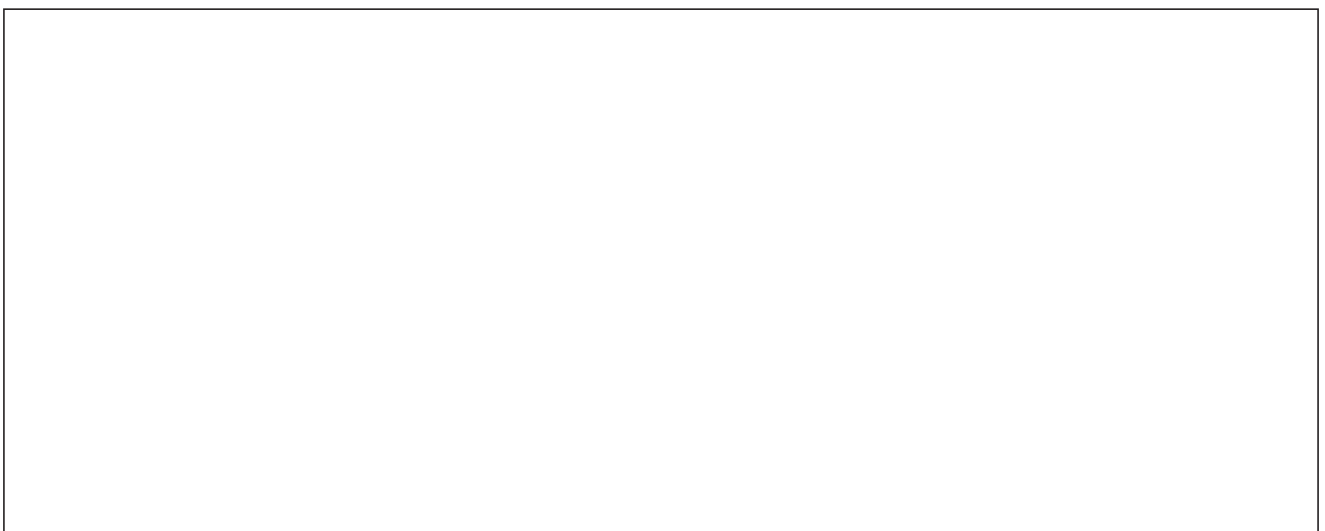
- b Sketch a suitable demand diagram to show the impact on price following an increase in demand for organic free-range chicken.

[2]

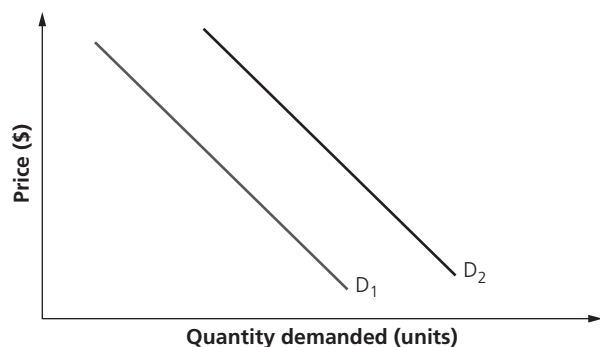


- c Sketch a suitable demand diagram to show the impact on price following an increase in the cost of supplying organic free-range chicken to supermarkets.

[2]



- 2 The diagram below shows the market demand for Nike football boots (soccer shoes).



- a Outline the difference between a movement along a demand curve and a shift in the demand curve for football boots. [2]

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- b Explain **two** factors that may have caused the shift in the demand curve for football boots. [4]

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- 3 The table below shows the demand for cinema tickets at a local movie theatre. Quantities are expressed as the average number of tickets per week.

Price of tickets (\$)	Adults (D_1)	Children (D_2)	Students (D_3)	Market demand (D_4)
10	4,700	3,500	2,600	
12	4,300	3,000	2,300	
14	3,900	2,500	2,000	
16	3,500	2,000	1,700	

- a Define the term *market demand*. [2]

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- b** Use the table above to calculate the value of market demand for cinema tickets at each price level. [2]

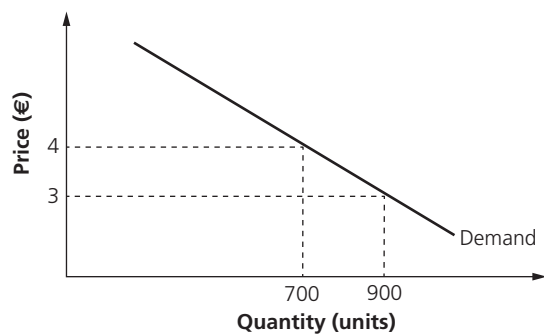
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- c** Use the table and your answer from Question 3a to plot the individual demand curves (adults, children and students) and the market demand curve for cinema tickets. [3]



- 4 The diagram below shows the daily demand for a brand of ice cream in Paris for an average week in March.



- a Use the diagram to determine whether the firm should sell its ice cream at €3 or €4. [3]

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- b Explain the difference between a movement along a demand curve and a shift in the demand curve for ice cream. [4]

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- c Outline **one** reason why the demand for ice cream might be different during the month of August. [2]

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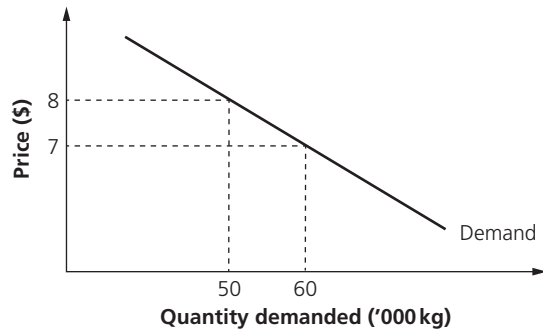
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5 Answer the following questions with reference to the demand curve shown below. (HL only)



a Define the term *law of demand*.

[2]

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b With reference to the substitution and income effects, explain why the demand curve is downward sloping.

[4]

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c Calculate the change in the value of sales revenue if the firm raises its price from \$7 to \$8 and comment on your findings.

[4]

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Economics

QUANTITATIVE SKILLS WORKBOOK

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Paul Hoang is an experienced Business Management and Economics teacher and the author of several best-selling titles for IB and IGCSE. He has held the positions of IB Diploma Programme Coordinator and Vice Principal at a renowned IB World School in Hong Kong. He is a highly experienced IB workshop leader, an examiner for various examination boards, and an educational consultant.

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