

Merrowdale: One Railway, One Buyer

Student workbook | Pearson Edexcel A level Economics A (9EC0), Theme 3, sections 3.4.5 and 3.4.6 | Year 12 or 13 | Original TBS three-lesson data-response pack

High in the dale of Merrowdale there is one railway and one place to sell a lamb. Merrowdale Fell Railway is the only way up the hill for visitors and for the people who live in the upper village. Merrowdale Lamb Company is the only buyer for the dale farmers' lambs. Over three lessons you work as an economic adviser: you will explain how a monopoly and a monopsony behave, draw the diagrams, and advise the district council on what to do about the railway.

Lesson	Question	You will
1	How does a monopoly set its fare?	find the profit-maximising fare from a table, work out marginal revenue, draw the monopoly diagram and test third degree price discrimination
2	What happens when there is only one buyer?	work out the marginal cost of buying lambs, find the monopsony price and quantity, draw the diagram and measure the surplus lost
3	What should the council do?	measure who gains and loses, compare four council options with figures, and write a recommendation of about 180 words

Merrowdale at a glance

Feature	Details
Money	All prices and costs are in pounds (£). The railway is measured per summer day, the lambs per week in the autumn selling season.
Costs	Every cost includes normal profit: what the owners' time and money would earn elsewhere. Profit above that is supernormal profit.
Council	Merrowdale District Council can regulate fares or give a subsidy to the railway. It has no power over the lamb market in this pack.
Diagrams	Figures 1 to 4 are numbered. Read prices to the nearest 50p (Figures 1, 2 and 4) or the nearest £1 (Figure 3), and quantities to the nearest 10 passengers or 10 lambs. All demand and supply lines are straight lines.

Merrowdale, the railway, the lamb company, the council and every figure are fictional and invented for teaching. They are not real statistics and do not describe any real place or business. You need a calculator, a pencil and a ruler. The data pack is on pages 2 to 4; each task repeats the figures it needs. This is original classroom practice, not an exam paper. This is a TBS resource, not endorsed by Pearson, and contains no Pearson exam questions, marks or mark schemes. Timings and figures are estimated, not trialled in a classroom.

Free sample

Merrowdale: monopoly and monopsony

Contents of the full pack

Lesson 1: How does a monopoly set its fare?

Lesson 2: What happens when there is only one buyer?

Lesson 3: What should the council do?

Student workbook and teacher guide, as PDF and as editable Word files.

The teacher guide has lesson plans, full worked answers and indicative guidance.

This sample is the cover and the first two pages of Lesson 1 of the student workbook. It contains no answers. The pages that follow are exactly as in the full pack.

Lesson 1: How does a monopoly set its fare?

By the end of this lesson you can find a monopolist's profit-maximising fare from a table, calculate marginal revenue, draw and explain the equilibrium on a diagram, and explain third degree price discrimination.

Starter: which characteristic?

Write the characteristic of monopoly that each description shows.

Description (Merrowdale Fell Railway)	Characteristic
1. Merrowdale Fell Railway is the only way up the hill apart from a six-hour walk	
2. A rival would have to buy land and build a new line	
3. The railway decides its fare; it does not take a market price	
4. To sell more tickets the railway must cut its fare	
5. There is no other railway: the firm is the whole industry	
6. Track, station and staff cost £1,200 a day however many people ride	

Task 1: the best single fare

Table 1 (one fare for everyone). Costs: $TC = 1,200 + 4q$. Complete the total passengers, TR (fare x passengers), TC and profit (TR - TC) for fares of £8 to £13. Fares of £7 and £14 are done for you.

Task 1 continued. Table 1, completing the blank cells for fares of £8 to £13:

Fare (£)	Visitors	Residents	Total passengers	TR = fare x passengers (£)	TC = 1,200 + 4q (£)	Profit = TR - TC (£)
7	260	90	350	2,450	2,600	-150
8	240	60				
9	220	30				
10	200	0				
11	180	0				
12	160	0				
13	140	0				
14	120	0	120	1,680	1,680	0

Working space (the £7 and £14 rows are completed):

b. State the fare that gives the highest profit and the profit. Is the profit above normal profit?