

Exercise walk-through

2.6

Price elasticity of demand (PED)

IGCSE Economics

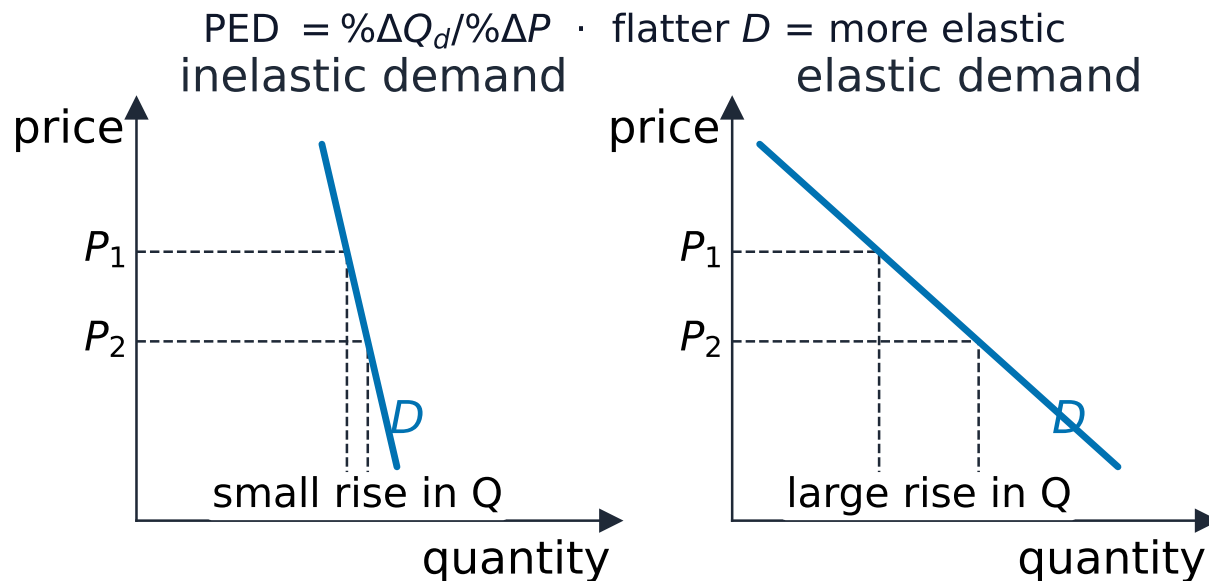
Price elasticity of demand

Price elasticity of demand
price.

measures how much quantity responds to

- **inelastic** – little response
- **elastic** – big response

Price elasticity of demand, in detail



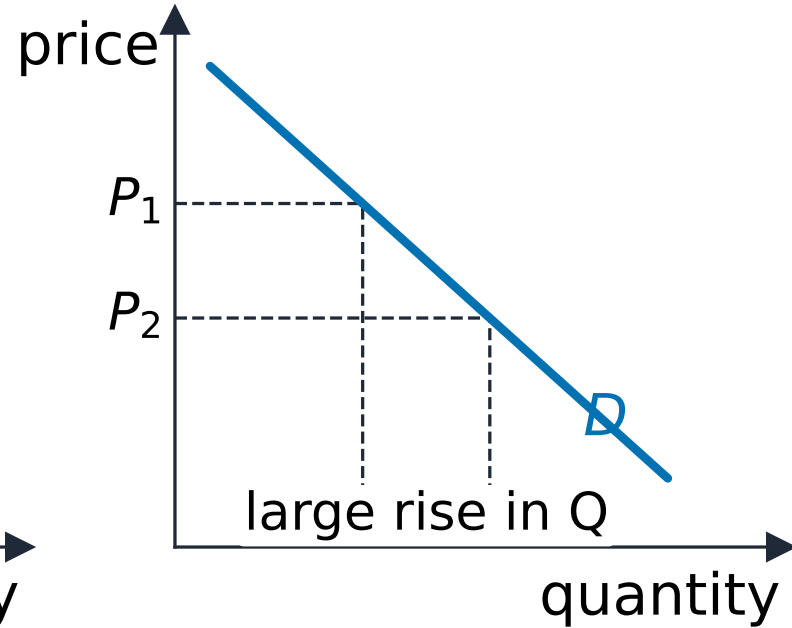
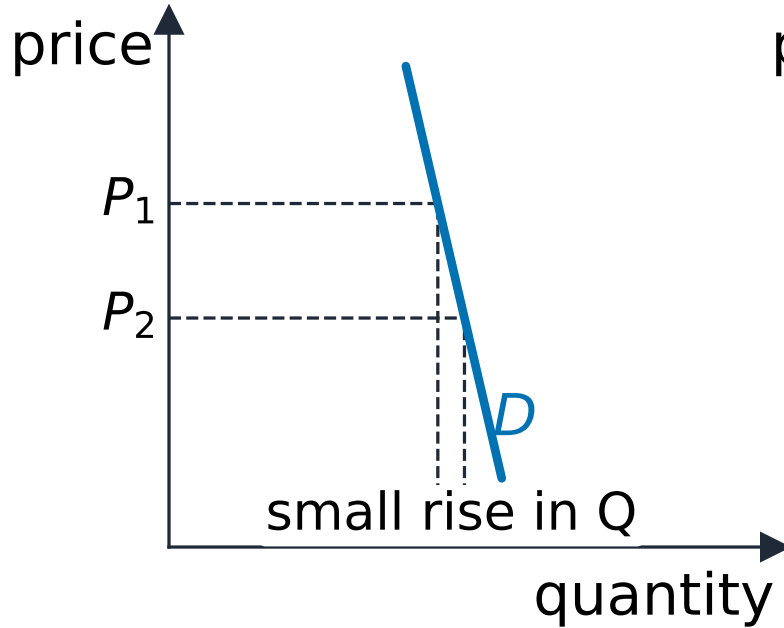
When demand is inelastic (steep) a price change barely changes quantity; when it is elastic (shallow) the same change moves quantity a lot.

Reading the elasticity value

- $PED > 1$: **elastic**
brand of crisps.
 - quantity changes by a large %. Many substitutes, like one
- $PED < 1$: **inelastic**
petrol, salt.
 - quantity barely moves. Needs with few substitutes:
- $PED = 1$: **unit elastic**
.

Reading the elasticity value, in detail

$PED = \% \Delta Q_d / \% \Delta P$ · flatter D = more elastic
inelastic demand elastic demand



Steep is inelastic; shallow is elastic

Elasticity decides what a price rise does to revenue

If demand is **inelastic**, raising the price raises revenue – customers stay. If it is **elastic**, raising the price **lowers** revenue, because enough customers leave to outweigh the higher price.

Exercises 2.1·2.2

2.1 Define *price elasticity of demand (PED)*.

[2]

2.2 Price rises by 10% and quantity demanded falls by 30%. Calculate the PED and classify the demand.

[2]

Exercises 2.1·2.2

2.1 Define *price elasticity of demand (PED)*.

[2]

2.1

- **PED** measures how much quantity demanded responds to a change in price (K)
- $\text{PED} = \frac{\% \text{ change in quantity demanded}}{\% \text{ change in price}}$

2.2 Price rises by 10% and quantity demanded falls by 30%. Calculate the PED and classify the demand.

[2]

2.2

- quantity demanded falls 30% when price rises 10%

$$\text{PED} = \frac{30}{10} = \mathbf{3}$$

- greater than 1, so demand is **elastic** (K)

Exercises 2.3-3.1

2.3 State one factor that makes demand for a good elastic.

[1]

3.1 A good has a PED of 0.3. To raise its total revenue, a firm should:

[1]

☐

A lower the price

B raise the price

C keep the price the same

D stop producing it

Exercises 2.3·3.1

2.3 State one factor that makes demand for a good elastic.

[1]

2.3

- any **one** of: many **substitutes** / a **luxury** / a **large share of income** (K)

3.1 A good has a PED of 0.3. To raise its total revenue, a firm should:

[1]

☐

A lower the price

B raise the price

C keep the price the same

D stop producing it

3.1 B

- $PED = 0.3$ is **inelastic** (< 1) (K)
- raising the price **raises total revenue** (An)
- A would cut revenue; C and D do not raise it

Exercises 3.2-3.3

3.2 Explain why the demand for petrol is price inelastic.

[4]

3.3 Analyse why a government often places taxes on goods with inelastic demand, such as cigarettes.

[6]

Exercises 3.2-3.3

3.2 Explain why the demand for petrol is price inelastic.

[4]

3.2

- petrol is a **necessity** for drivers with few close substitutes (K)
- when its price rises, people still need to drive (An)
- quantity demanded falls only a little → demand is **price inelastic** (An)

3.3 Analyse why a government often places taxes on goods with inelastic demand, such as cigarettes.

[6]

3.3

- for an inelastic good, a tax **raises the price** but quantity bought falls only a little (K)
- people keep buying and paying the tax → the government collects **large, steady revenue** (An)
- it may also slightly reduce smoking (a **demerit good**) (An)