Answers

Answers to the PED sorting question on page 3

Elastic goods Customers are very sensitive to price and will choose a substitute if prices rise	Inelastic goods Customers will pay even if the prices rises, few substitutes
1 Bread 4 Cola 6 Shampoo 7 Coffee 11 Football team kit 12 Sunglasses	2 Petrol 3 Medicine 5 Train ticket (depends how urgent the trip is an availability of alternative travel methods) 8 New iPhone 9 New games console 10 Latest Nike trainers

Please note that all of these (apart from petrol and medicine) could be argued are elastic. There is not enough context given in these examples to be absolutes.

Answers to PED example calculations on page 7

% Change in Quantity Demanded	% Change in Price	Elasticity	Comment
45	-25	-1.8	This is greater than 1 so the product has elastic demand
3	-9	-0.33	This is less than 1 so the product has inelastic demand
10	-5	-2	This is greater than 1 so the product has elastic demand
45	-12	-3.75	This is greater than 1 so the product has elastic demand
17.5	-90	-0.19	This is less than 1 so the product has inelastic demand
-8	11	-0.73 (Round up)	This is less than 1 so the product has inelastic demand
-16.24	25.97	-0.63 (Round up)	This is less than 1 so the product has inelastic demand

Answers to PED practice questions

Practice question 1 on page 9

25% x -0.7 = -17.50%

If Amin puts the price of the Kesley suitcase up by 25% that he can expect sales to decrease by 17.50%

Practice question 2 on page 10

Percentage change in quality demanded (given in question) is -10%

- **Percentage change in price is 40% increase (also given in question)**
- **Use the PED formula**
- **-10% ÷ 40% = -0.25**
- **PED value of -0.25 is a number less than 1 (<1) so demand is inelastic**

Melissa can increase the prices of energy drinks and the kids from school will probably still buy them without a significant drop in sales.

Practice question 3 on page 11

For this question you need both formulae

Step 1: First calculate change in quantity demanded

New = 891 units in Feb

Old = 900 units in Jan

Use the percentage change formula

891 – 900 = (-9)

(-9) ÷ 900 x 100

Percentage change of quantity demanded is -1%

Step 2: Then calculate change in price

New = £21.63 in Feb

Old = £20.60 in Jan

Use the percentage change formula

£21.63 – £20.60 = £1.03

£1.03 ÷ £20.60 x 100 = 5%

Percentage change in price is 5%

Step 3: Apply the PED formula

(-1%) ÷ 5 = -0.2

PED is -0.2

Because the PED result is less than 1 the demand for Fishcorn is inelastic, remember to ignore the minus sign when working out if the product is elastic or inelastic. The good news is that Harley's customers are not very sensitive to price changes. This means they can put their prices up and customers will still buy the Fishcorn.

PED practice questions – answers continued

Practice question 4 on page 12

Step 1: Calculate the change in quantity demanded

Use the percentage change formula

Old demand for monitors 60

New demand for monitors is 75

75 – 60 = 15

15 ÷ 60 x 100

Percentage change in quantity demanded is 25%

Step 2: Next calculate the change in price

Use the percentage change formula

Old price £150

New price £120

120 – 150 = -30

-30 ÷ 150 x 100

Percentage change in price is -20%

Step 3: Apply the PED formula

25% ÷ (-20%) = -1.25

PED value is -1.25

PED is greater than 1 (ignore the minus sign) so the monitors have inelastic demand. Jason can put his prices up and his customers will still buy the monitors.

Practice question 5 on page 13

Step 1: Find the percentage change in quantity demanded

This is given in the question and is (-21%)

Step 2: Calculate the percentage change in price

Old price is £3.00

New price is £3.50

£3.50 - £3.00 = £0.50

£0.50 ÷ £3.00 x 100 = 16.67%

Step 3: Use the PED formula

(-21%)÷ 16.67%

PED is -1.26 (remember to round up to two decimal places)

PED is greater than 1 (ignore the minus) so demand for the product is price elastic

Practice question 6 on page 14

A business could use PED information to help them make a pricing decision. If they are unsure whether or not they can increase or decrease the prices and still make sales, then they will use PED calculations to do this.

A business can also use PED to forecast sales levels as they are able to predict the possible effect on sales of a change of price. This is useful for the marketing department who will need to know if they can offer a sales promotion on the product e.g. 25% off.

Practice question 7 on page 15

Step 1: Rearrange the PED formula

% Change in Price x PED value

Step 2: Make the calculation

11% x -0.4 = -4.4%

Step 3: Make a conclusion

Gurjivan can expect sales to decrease by 4.4%