

AQA A-LEVEL ECONOMICS • 7136

ECONOMICS



EXAM QUESTION PACK

3.2.1.3 USES OF INDEX NUMBERS

SCORE

/24

PERCENTAGE

%

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1.

An economy's GDP increased from £400 billion in 2016 to £428 billion in 2018. Using 2016 as the base year, what is the value of the index for GDP in 2018?

A 103.5

☐

B 106.5

☐

C 107.0

☐

D 128.0

☐

[1 mark]

2.

'Inflation needs to be avoided at all costs but it is nowhere near as damaging to an economy as deflation.'

Explain how inflation is measured in the UK through indices such as the Retail Prices Index (RPI) and the Consumer Prices Index (CPI).

[15 marks]

3.

FREE SCHOOL MEALS

Extract A: Index of average household disposable income, and index of food prices, in the UK 2008 to 2012 (2008 = 100)

Year	Disposable income	Food prices
2008	100	100
2009	102	106
2010	105	109
2011	110	114
2012	108	118

Note: All figures are rounded

Source: Official statistics, October 2013

4.

The table below shows details for a weighted price index which contains only two products, X and Y.

Product	Year 1 price (£)	Year 2 price (£)	Weight
X	10	12	2
Y	20	18	1

If Year 1 is the base year, what is the value of the weighted index in Year 2?

A 100

☐

B 105

☐

C 110

☐

D 120

☐

[1 mark]

5.

Using **Free School Meals Extract A**, identify **two** significant points of comparison between the changes in the index of average disposable income and the changes in the index of food prices over the period shown.

Comparison 1

Comparison 2

[4 marks]

6.

The table below shows indices for real GDP and consumer prices in an economy over six quarters.

Quarter	Index of real GDP	Index of consumer prices
1	106	100
2	105	105
3	104	111
4	105	116
5	107	120
6	110	123

During these six quarters the economy experienced

- A deflation and a recession.
- B disinflation when in recession.
- C disinflation when recovering from recession.
- D rising inflation when recovering from recession.

☐
☐
☐
☐

[1 mark]

7.

The table below shows the Consumer Prices Index for a country over a number of years.

Year	End of year prices index
1	100
2	98
3	103
4	105
5	106
6	104
7	107

Which one of the following statements is correct?

- A The country suffered disinflation in Year 5
- B The inflation rate was highest in Year 7
- C The only time the country suffered deflation was in Year 2
- D Real incomes fell between Year 1 and Year 7

☐
☐
☐
☐

[1 mark]

8.

The following table shows the real GDP of an economy from 2012 to 2016.

Year	2012	2013	2014	2015	2016
Real GDP (£bn)	213	215	245	256	271

If the figures were converted to index form with 2013 as the base year, what would be the value of the index (to the nearest whole number) in 2016?

A 124

☐

B 125

☐

C 126

☐

D 127

☐

[1 mark]

Mark schemes

1.

C

[1]

2.

For candidates who:

Define / explain inflation and / or index numbers in a general sense and / or refer to UK inflation

Explain how inflation is measured in the UK with reference to, eg:

- the concept of a 'basket' of goods and services to include all types of household spending, including food, restaurant meals, tobacco but with some exclusions from the RPI, for example, interest charges on credit cards. The prices of a large and varied sample of products in the basket are gauged. A wide range of retail venues is chosen in about 150 places around the UK. The goods and services for which prices are recorded are known as 'representative items' of which there are 650. Their movement is taken to represent the price changes for all goods and services covered by the index.
- an inflation index as a measure of average prices and of price changes not price levels. So, for example, for RPI with Jan 1987 = 100, the index was 209.8 in January 2008 compared to 201.6 a year earlier. An annual inflation rate of 4.1% can be calculated from these data
- Family Expenditure Survey
- the concept of the 'average family'
- the system of weighting
- comparison between indices, eg the RPI, CPI, RPIX, TPI (only the first two are cited in the specification)
- any other valid feature of measurement using indices.

Make use of diagrams **in the analysis**.

[15]

4.

C

[1]

5.

Award up to 2 marks for each significant point of comparison made.

Response	Marks
Identifies a significant point of comparison. Makes accurate use of the data to support the comparison identified. Unit of measurement given accurately.	2 marks
Identifies a significant point of comparison but only one piece of data is given when two are needed and/or no unit of measurement is given and/or the unit of measurement is inaccurate and/or the wrong date is given. OR Identifies a significant feature of one data series with accurate use of the data (including the unit of measurement) but no comparison is made.	1 mark

If a candidate identifies more than two significant points of comparison, reward the best two.

Significant points include:

- the index of average disposable income (from 100 to 108) and the index of food prices (from 100 to 118) were both higher at the end of the period than the beginning
- the index of food prices increased more (from 100 to 118, ie an increase of 18%) than the index of average disposable income (from 100 to 108, ie an increase of 8%)
- the highest index of average disposable income was in 2011 (110), whereas the highest index of food prices was in 2012 (118)
- the index of average disposable income and the index of food prices were both lowest at the start of the period (100 for both income and food prices in 2008)
- the range of the index of average disposable income (100 to 118, ie 18) was greater than the range for the index of food prices (100 to 110, ie 10)
- the greatest change in the index of average disposable income was between 2010 and 2011 (105 to 110), whereas the greatest change in the index of food prices was between 2008 and 2009 (100 to 106)
- the smallest change in the index of average disposable income was between 2011 and 2012 (110 to 108), although allow 2008 to 2009 where the index rose from 100 to 102 (a slightly larger percentage), whereas the smallest change in the index of food prices was between 2009 and 2010 (106 to 109)
- the index of food prices rose every year (eg from 109 to 114 between 2010 and 2011), whereas the index for average disposable income rose each year until 2011 (eg from 105 to 110 between 2010 and 2011), before falling in 2012 (to 108).

Notes:

Do NOT allow that food prices are higher than incomes for most of the period.

The higher index number for food is covered by the second point in the mark scheme.

Index numbers have no units but valid points should refer to 'the index'.

[4]

6.

C

[1]

7. A

[1]

8. C

[1]