Simple index numbers

Grade 4 | Foundation and Higher | 5 questions, 20 marks

GCSE Statistics topic practice

Name: _____ **Date:** _____ **Score:** _____ **/ 20**

1 The table shows index numbers for the price of a loaf of bread at a bakery.

Year	2020	2022	2024
Index number	100	108	125

a. Write down the base year. Give a reason for your answer. (1)

b. Write down the percentage increase in the price of the loaf from 2020 to 2024. (1)

c. The loaf cost £1.50 in 2020. Work out the price of the loaf in 2022. (1)

(3 marks)

2 A monthly bus pass cost £60 in 2020 and £69 in 2023.

a. Using 2020 as the base year, work out the index number for the price of the bus pass in 2023. (2)

b. The index number for the price in 2025, using 2020 as the base year, is 124. Explain what this index number tells you about the price of the bus pass. (1)

c. Work out the price of the bus pass in 2025. (1)

(4 marks)

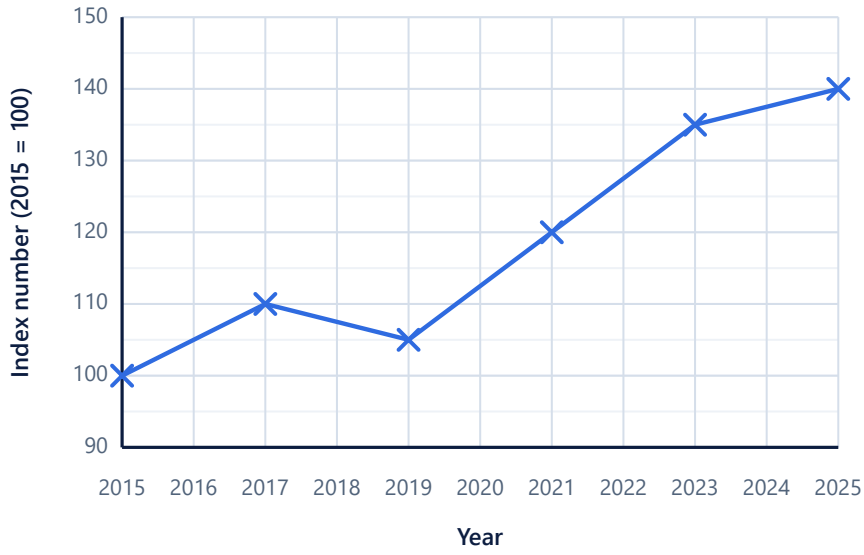
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3 The graph shows index numbers for the average price of a house in a town. The base year is 2015.

a. Write down the index number for 2021. (1)

b. The average price of a house in the town in 2015 was £180 000. Work out the average price in 2023. (2)

c. Between which two years shown on the graph did the average price fall? Give a reason for your answer. (1)



(4 marks)

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4 The index number for the price of a rail season ticket in 2024, using 2019 as the base year, is 130. The season ticket cost £585 in 2024.

a. Work out the price of the season ticket in 2019. (2)

b. The index number for average wages in the same town in 2024, using 2019 as the base year, is 118. Zara says, "The season ticket was harder to afford in 2024 than in 2019." Is Zara correct? Give a reason for your answer. (2)

(4 marks)

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5 A television cost £400 in 2018. The same model cost £340 in 2021.

a. Using 2018 as the base year, work out the index number for the price of the television in 2021. (2)

b. Explain what this index number tells you about the price of the television. (1)

c. The index number for the price in 2024, using 2018 as the base year, is 80. Lena says, "The index number went down by 5, so the price fell by 5% from 2021 to 2024." Is Lena correct? You must show your working. (2)

(5 marks)

End of questions | Total 20 marks

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