

Percentage Change

Video 233 on Corbettmaths

Examples

Workout



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Question 1: In January, a puppy weighed 4kg.
Three months later, the same puppy weighed 5kg.
What was the percentage increase in the puppy's weight?



Question 2: The number of TVs sold increased from 50 to 60.
Work out the percentage increase.



Question 3: Peter's weight decreases from 80kg to 72kg.
Calculate the percentage decrease in Peter's weight.



Question 4: A car is travelling at 40 kilometres per hour.
The car increases its speed to 56 kilometres per hour.
Calculate the percentage increase in the speed of the car.



Question 5: Keira buys a coffee table for £120 and sells it for £204.
Work out her percentage profit.



Question 6: Daisy bought a car for £20,000.
She sold the car for £15,000.
Work out the percentage loss.



Question 7: The population of an island in 2017 was 30,000.
In 2018, the population was 31,500.
Calculate the percentage increase.



Question 8: Rebecca bought a dress for £80.
She later sold it for £116.
Find the percentage profit.



Question 9: In a sale the price of a football shirt decreases from £50 to £37.
Work out the percentage decrease in price.



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Question 10: The value of a painting rises from £24000 to £27120.
Work out the percentage increase in the value of the painting.



Question 11: Christy buys a book for £17.40
A year later she sells the book for £9.57
Calculate the percentage decrease in the value of the book.



Question 12: In a sale the price of a sofa is reduced from £2500 to £2290
What is the percentage decrease?



Question 13: The volume of juice in a bottle is increased from 500ml to 1.25 litres.
Work out the percentage increase.



Question 14: The population of Bristol in 1921 was 367,831.
In 2017, the population was 459,300.
Calculate the percentage increase.
Give your answer correct to one decimal place.



Question 15: A website had 80000 views in September.
It had 122400 views in October.
Work out the percentage increase in views.



Question 16: An empty bucket weighs 800g.
The weight of the bucket increases to 3.3kg when filled with water.
Calculate the percentage increase in the weight of the bucket.



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Question 1: A shop sells holidays.
The table shows the number of holidays sold each month from August to December.



Aug	Sept	Oct	Nov	Dec
28	40	54	80	111

Between which two consecutive months was the greatest percentage increase in the number of holidays sold.

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- Question 2: ABCD is a rectangle with length 40cm and width 10cm.
The length of the rectangle is decreased by 40%.
The width of the rectangle is decreased by 20%.
Find the percentage decrease in the area of the rectangle.



- Question 3: Nancy goes to the Post Office to exchange money.



Exchange Rates

£1 : \$1.31

£1 : €1.14

*Commission Charged

Nancy changes \$759.80 and €342 into pounds sterling.
The Post Office deducts their commission and gives Nancy £827.20
What is the percentage commission?

- Question 4: The number of visitors to a museum in 2018 was 8.42×10^4
In 2019, the museum had 1.1×10^5 visitors.
Calculate the percentage increase



- Question 5: A shop normally sells their goods at 90% above cost price.
In a sale, the shop reduces the prices by 10%
What percentage profit does the shop make on clothes sold in the sale?



- Question 6: Maisie bought a house.
The value of the house decreased by 10% in 2016.
For three consecutive years, 2017, 2018 and 2019 the value of the house increased.
Each year the percentage increase in value was the same each time.
The value of the house at the end of 2019 was 55.52% more than he paid for the house.
Calculate the percentage increase in value of the house for each of the three consecutive years.



- Question 7: W is directly proportional to the cube root of X
X is increased by 50%



Work out the percentage increase in W.

Answers



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