PERCENTAGE PRACTICE ACTIVITIES

tutor2u

Question 1

A business increases its selling price from £5 to £7.

Calculate the percentage increase in price.

Question 2

A business reduces its selling price from £12 to £7.50.

Calculate the percentage decrease in price.

Question 3

A business sells a product for £150 per unit. It decides to reduce the price by 20%.

Calculate the new selling price per unit.

Question 4

After reducing the price of a product, the quantity demanded of the product increased from 200 units per week to 260 units per week.

Calculate the percentage increase in the quantity demanded.

Question 5

A business increased the price of its products from £80 per unit to £110 per unit. After the price increase, the quantity demanded fell from 800 units per week to 700 units per week.

Calculate the percentage increase in price and the percentage decrease in the quantity demanded.

Question 6

A business employs 2,200 staff. 176 staff work at the Head Office of the business.

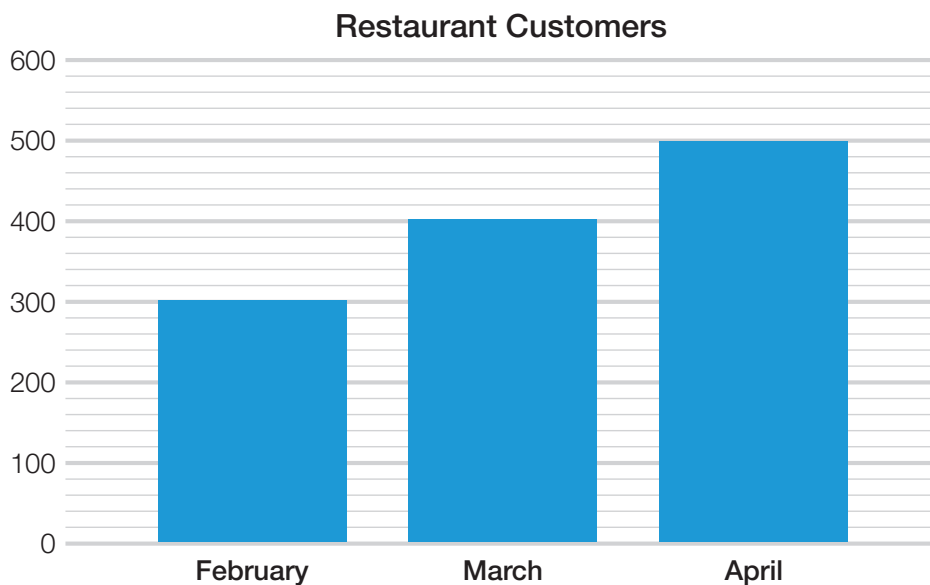Calculate the percentage of staff who work at Head Office.

Question 7

This year a business estimates that it will sell 138,000 units, 15% less than last year.

Calculate the estimated number of units sold last year.

Question 8

The graph below shows the number of customers who visited a restaurant during February, March and April.

Restaurant Customers

Based on the graph above, calculate:

i The percentage increase in customers between February and April. Write your answer to two decimal places.

ii The percentage increase in customers between March and April.

iii Due to some refurbishments due to take place in May, the owners of the café estimate
that the number of customers will fall by 22% compared to April.

Calculate the estimated number of customers in May.

Question 9

In 2018, the total size of a market by value was £840,000, 5% higher than in 2017. The average
selling price per unit in 2017 was £4.

Calculate the total size of the market by volume in 2017.

PERCENTAGE PRACTICE ACTIVITIES

Question 10

In 2018, the size of a market by volume was 400,000 units. The market is expected to grow by 6% per year for the next 5 years.

Calculate the expected market size by volume in 2019 and 2020.

Question 11

In 2016, a business had sales revenue of £200,000. In 2017, their sales revenue increased to £240,000 and in 2018 it increased to £288,000. In 2019, the total size of the market by value of the market the business operates in is forecast to be £8,640,000.

If the business achieves the same rate of sales growth in 2019 as it has previously, what will their market share be in 2019?

Question 12

A café is looking to expand by opening a second store. The business is choosing between two locations, Location A and Location B. The table below shows some data on each location.

	Rent per calendar month
Location A	£800
Location B	£1000

Location B is expected to have a footfall of 700 customers per week, which is 40% higher than the estimated footfall of Location A. The café will open every week of the year. Using the information provided, calculate:

i The estimated annual footfall for Location A.

ii The annual rent of Location A as a percentage of the annual rent for Location B.

Question 13

Simon Levy is looking at starting his own business and is considering purchasing some premises for £80,000. Simon will need to pay a deposit of 20% and obtain a mortgage for the remainder. The bank advises Simon that the monthly payment will be £7.25 for every £1,000 borrowed.

Calculate the monthly repayment.

Question 14

Last year, a chain of Italian restaurants achieved a total sales revenue of £3m, giving the business a 15% market share of the local market.

This year, the chain estimates that the size of the market they operate in will increase by 5% and their sales revenue will increase by 12%.

Calculate the estimated market share of the restaurant chain for this year.

PERCENTAGE PRACTICE ACTIVITIES
TEACHER ANSWERS

Question 1
(£7 - £5) / 5 x 100 = 40%

Question 2
(£12 - £7.50) / £12 x 100 = 37.5%

Question 3
£150 x 0.80 = £120

Question 4
(260 – 200) / 200 x 100 = 30%

Question 5
Percentage increase in price = (£110 - £80)/ £80 x 100 = 37.5%
Percentage decrease in the quantity demanded = (800 – 700) / 800 x 100 = 12.5%

Question 6
(176 / 2,200) x 100 = 8%

Question 7
138,000/ 1.15 = 120,000 units

Question 8
  i (500 – 300) / 300 x 100 = 66.67%
  ii (500 – 400) / 400 x 100 = 25%
  iii 500 x 0.88 = 440 customers

Question 9
(£840,000 / 1.05) / £4 = £200,000 units

Question 10
Market size by volume in 2019 = 400,000 x 1.06 = 424,000 units
Market size by volume in 2020 = 424,000 x 1.06 = 449,440 units

Question 11
% growth between 2016 and 2017 = (£240,000 - £200,000) / £200,000 x 100 = 20%
% growth between 2017 and 2018 = (£288,000 - £240,000) / £240,000 x 100 = 20%
Estimated sales revenue in 2019 = £288,000 x 1.20 = £345,600
Estimated market share in 2019 = (£345,600/ £8,640,000) x 100 = 4%

Question 12

i (700/ 1.40) x 52 = 26,000 customers

ii Annual rent for Location A = £800 x 12 = £9,600
Annual rent for Location B = £1,000 x 12 = £12,000
(£9,600 / £12,000) x 100 = 80%

Question 13

(Amount borrowed = £72,000 x 0.8 = £64,000
(£64,000/ £1,000) x £7.25 = £464 per month

Question 14

Total size of the market last year = (£3,000,000 / 15) x 100 = £20,000,000
Estimated size of the market this year = £20,000,000 x 1.05 = £21,000,000
Estimated sales revenue this year = £3,000,000 x 1.12 = £3,360,000
Estimated market share this year = (£3,360,000 / £21,000,000) x 100 = 16%