

1 - BC Numeracy 10 Exam Practice – Percentages

1. Student Transcript

At the end of the semester, a student logged into the online transcript system to check their exam results. For one of their courses, the multiple-choice exam had 60 questions. The transcript showed that the student answered 45 questions correctly.

The student wanted to see what grade percentage this would be reported as.

- a) **What percent of the exam did the student answer correctly?**
 - b) **What percent of the exam did the student answer incorrectly?**
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2. Company Ownership Agreement

When they started their café, Noah contributed \$12,000 for renovations while Priya contributed \$18,000 for furniture and equipment. Their contract states that ownership is divided based on the proportion of money invested.

After 3 years, the café is profitable and they want to divide future earnings according to ownership.

- a) **What percent of the café does Noah own?**
 - b) **If the café earned \$50,000 in profit this year, how much of that profit would Noah receive?**
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3. Store Financing Plan

A computer store posted a large advertisement in the window of their downtown location:

“Take home a new laptop today with only 20% down. Pay the remaining balance later with 0% interest for one year!”

The laptop featured in the advertisement had a listed price of \$1,450.

- a) **How much is the down payment?**
 - b) **How much remains to be paid later?**
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4. Store Flyer Discount

The *North Valley Times* published a flyer from Tech World advertising a weekend sale:

“All electronics are discounted 30% off the original ticket price. Sale ends this Sunday.”

One of the items featured is a tablet with a listed price of \$840. The shopper reading the flyer wants to know how much money they would need to bring to the store, before taxes, in order to buy it.

- a) **What is the sale price of the tablet before taxes?**
 - b) **If a 12% sales tax is applied to the discounted price, what is the final cost of the tablet?**
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5. Sports Training Log

A runner keeps a weekly training journal. In her notes for last week, she wrote that she completed a distance of 12 km. Her coach reviewed the journal and wrote back:

“This week, try increasing your distance by 15% to build endurance.”

The athlete wants to know how far she needs to run to meet her coach’s suggestion.

- a) **How many kilometres should she run this week?**
 - b) **If she only runs 13 km, by what percent did she fall short of the target?**
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6. Environmental Report

An environmental group called *Forests for the Future* released a two-page report summarizing tree planting in the northern region. The report included this statement:

“In 2021, 62,400 trees were planted by volunteers across the region. In 2022, planting efforts expanded, and the total number of trees planted grew to 70,680.”

The group’s goal was to show whether they were meeting their annual target of a 10% increase.

- a) **By what percent did tree planting increase from 2021 to 2022?**
 - b) **Did the group meet or exceed their 10% goal, and if so, by how much (in percent)?**
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7. Bookstore Monthly Report

The owner of a small independent bookstore reviews monthly sales data. In the June report, sales were recorded at 1,750 books. In July, the sales report showed only 1,400 books sold.

The owner wants to know how large the decrease in sales was compared to June.

- a) **What percent decrease in sales occurred from June to July?**
 - b) **What percent of June’s sales did July’s sales represent?**
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8. Household Energy Use

A local energy company, *North Power*, mailed out an annual household energy summary. The statement for one family showed:

- 2022 electricity charges: \$1,680
- 2023 electricity charges: \$1,428

The summary also noted: “*Your household energy use decreased compared to last year.*”

- a) **What percent reduction in electricity costs did the family experience from 2022 to 2023?**
 - b) **What percent of the 2022 cost did the family still pay in 2023?**
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9. Bicycle Shop Invoice

“Cycle Station,” a local bicycle shop, posted their supplier invoice in the staff room. The invoice showed that the shop paid \$520 for each new mountain bike in a recent order. On the sales floor, the price tag attached to each bike was listed as \$715.

A new employee was asked to calculate the markup to better understand the store’s pricing strategy.

- a) **What is the markup on each bike, expressed as a percentage of the shop’s cost?**
 - b) **How many dollars more than cost does the shop charge customers for one bike?**
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10. Festival Budget Review

The Sunshine Music Festival organizers presented their annual budget summary to the community. In the planning stage, the festival budget was set at \$360,000. After the festival ended, the final financial statement reported actual expenses of \$414,000.

- a) **By what percent did actual expenses exceed the budget?**
- b) **How many dollars over budget was the festival?**