



Percent

Source: Government of BC used with permission.



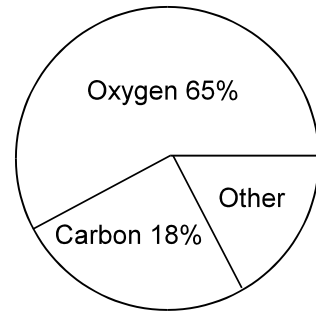


PERCENT 1

1. 18% of Alberta's paycheque is deducted for income tax and 6.3% goes for other deductions. What percent of her paycheque does Alberta have?

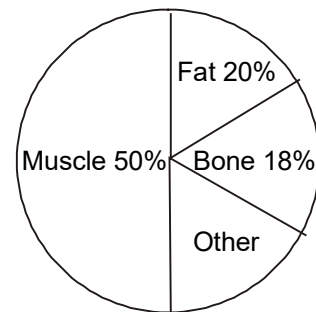
2. Study the circle graph.

- a. What percent of the human body is made up of oxygen and carbon?
- b. What percent is the other?



3. Study the circle graph.

- a. What percent is the other?
- b. Which two materials make up most of the body? How much?



4. By the end of the semester, 12 out of 40 students had withdrawn from a particular course. What percent was this?

5. There were 80 questions on a test. One student had 74 questions correct. What percent were correct? What percent were incorrect?

6. A common guide is that you should try to save 10% of your income. Don followed this advice and last month he saved \$186. What was his income for the month?

7. Water consists of 3 parts hydrogen and 16 parts oxygen. What percent of water is oxygen? (Hint: to find the total, add the parts.) Round your answer to one decimal place.

8. Carbon dioxide consists of 12 parts carbon to 32 parts oxygen. What percent of carbon dioxide is carbon? Round your answer to one decimal place.

9. 63 students completed the task and 22 did not. What percent of the students did complete the task? Round your answer to a whole percent.

10. About 60% of blood is a liquid called plasma which is mainly water. The average adult has about 6 litres of blood. How much water is in the average adult's blood?

ANSWER KEY

1. 75.7%
2. a. 83% b. 17%
3. a. 12% b. muscle and fat (70%)
4. 30%
5. 92.5%, 7.5%
6. \$1,860
7. 84.2%
8. 27.3%
9. 74%
10. 3.6L

Source: Government of BC used with permission.

PERCENT 2

1. Alexa bought a new car for \$6,750. She paid 20% down. If the balance is to be paid in 24 equal installments, how much will she pay each month? Hint: there are two steps to this problem.

2. If a grocer marks up his produce by 10%, what will be the price on each of the following? Round your answer to the nearest cent.
 - a. lettuce \$0.45/head
 - b. oranges \$1.60/dozen
 - c. tomatoes \$3.28/kg
 - d. carrots \$1.43/kg
 - e. onions \$0.66/kg

3. What is the percent reduction on a laptop if its regular price is \$800 and the sale price is \$560? Remember that the reduction is expressed as a percent of the regular price.

4. Which is a better discount, a stereo reduced from \$650 to \$500 or one reduced from \$750 to \$560?

5. A politician said he would take a 5% wage cut. His new salary, without benefits, is \$65,000 per year. Determine what his previous salary was.

6. What is the regular price of work gloves if the discount is 20% and the sale price is \$32?

7. The price of a colour television set was reduced from \$450 to \$424.99. What was the percent decrease in price?

8. A province charges a sales tax of 7%. What is the sales tax on a purchase of \$320?

9. An item has a marked price of \$425. It is placed on sale at 15% off. What is the discount and what is the sale price?

10. The combined sales tax in a province is 14%. If Pat was considering purchasing a tool set advertised at \$425, how much tax would be charged? What is the total cost of the tool set?

ANSWER KEY

1. \$225/month
2. lettuce \$0.50/head, oranges \$1.76/dozen, tomatoes \$3.61/kg, carrots \$1.57/kg, onions \$0.73/kg
3. $(\$800 - \$560) \div \$800 = 30\%$ reduction
4. $(\$650 - \$500) \div \$650 = 23\%$ reduction
 $(\$750 - \$560) \div \$750 = 25\%$ reduction - better buy
5. $x = \$68,421.05$ (previous salary)
6. $x = \$40$ (regular price of the dress)
7. Percent decrease 5.6%
8. Sales tax is \$22.40
9. discount is \$63.75, sales price \$361.25
10. \$59.50, \$484.50

Source: Government of BC used with permission.

PERCENT 3

1. Convert to a decimal:
 - a. 75%
 - b. $37\frac{1}{2}\%$

2. Convert to a fraction:
 - a. 150%
 - b. $3\frac{1}{4}\%$

3. Convert to percentage:
 - a. 0.15
 - b. 0.002
 - c. $\frac{3}{4}$
 - d. $\frac{2}{3}$
 - e. $2\frac{1}{2}$

4. Solve the following.
 - a. What percent of 85 is 17?
 - b. 75 is 300% of what number?
 - c. Find 12% of 12.

5. Dimitri got 39 out of 65 on the math test. What is the percent?

6. 62% of the 12,000 citizens voted for Kim. How many votes did Kim receive?

7. An 800 gram water sample contained 0.02% iron. How many grams of iron are in the water?

8. Only 17 of the 102 respondents answered the metric question correctly. What percent did not get the question correct?

9. Seven percent of light bulbs produced at The Light House are known to be defective. If 140 defective light bulbs were found last Tuesday, how many light bulbs were produced?

10. Enrollment in Adult Basic Education classes in September 2018 was 712 students. In September 2017, the enrollment was 656. What is the percentage increase?

11. A television originally priced at \$799 has been marked down to \$549. What is the percent decrease?

12. Find the simple interest on a credit card bill of \$960 at 16% for 60 days.

13. Find the simple interest on \$2,100 invested at 4% interest for $\frac{1}{2}$ a year.

14. A purchase of \$44 has additional sales tax of \$2.31. What is the sales tax rate?

ANSWER KEY

1. a. 0.75 b. 0.375
2. a. $\frac{3}{2}$ OR $1\frac{1}{2}$ b. $\frac{13}{400}$
3. a. 15% b. 0.2% c. 75% d. $66\frac{2}{3}\%$ or $66.\overline{6}\%$ e. 250%
4. a. 20% b. 25 c. 1.44
5. 60%
6. 7,440 votes
7. 0.16 grams
8. 16.7%
9. 2,000 bulbs
10. 8.5%
11. 68.7% 12. \$25.25
13. \$42 14. 5.25%

Source: Government of BC used with permission.

PERCENT 4

- Convert to a decimal:
 - 5%
 - 29.3%
- Convert to a fraction:
 - $37\frac{1}{2}\%$
 - 102%
- Convert to a percent:
 - 3.67
 - 0.725
 - $\frac{1}{5}$
 - $\frac{7}{8}$
 - $1\frac{2}{3}$
- Solve the following.
 - 9 is what percent of 27?
 - Find 25% of 200.
 - 15 is 25% of what number?
- Bianca got 68 out of 85 on the math test. What is the percent?
- 58% of the 15,000 citizens voted for Mario. How many votes did Mario receive?
- A 600-gram water sample contained 0.05% iron. How many grams of iron are in the water?

8. Only 9 of the 135 respondents answered the metric question correctly. What percent did not get the question correct?

9. A package of hamburger is 70% lean meat. The rest is fat. How much fat is there in a 2 kg package of hamburger?

10. Sodium chloride is 40% sodium and 60% chlorine. A 200 gram sample of sodium would be found in sodium chloride weighing how many grams?

11. It is estimated that 21.2% of all workers use a computer in their jobs. If 2 million workers use computers, how many workers are there in total?

12. Find the simple interest on a credit card bill of \$1,250 at 22% for 30 days.

13. Find the simple interest on \$1,000 invested at $6\frac{3}{4}\%$ interest for 1 year.

14. A pair of jeans that regularly costs \$38 is on sale at 40% off. What is the sale price?

