

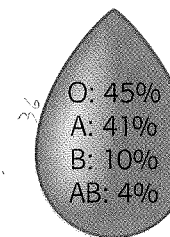
**A** Checking

- Calculate 15% of 60 using each method.
  - Use mental math:
    - Think of 10% of 60.
    - Take half of your number above.
    - Add the two numbers.
  - Use a proportion:
    - Rewrite  $\frac{15}{100}$  in lowest terms.
    - Multiply to rename this fraction as an amount out of 60.
- Determine each missing number.
  - 20% of  $\square = 45$
  - 12% of  $\square = 54$
- Estimate the 15% tip for each dinner bill.
  - \$26.50
  - \$13.22

**B** Practising

- Calculate.
  - 50% of 20
  - 75% of 24
  - 20% of 45
  - 12% of 50
  - 15% of 200
  - 44% of 250
- Calculate.
  - 50% of  $\square = 15$
  - 25% of  $\square = 22$
  - 10% of  $\square = 7$
  - 75% of  $\square = 12$
  - 15% of  $\square = 24$
  - 44% of  $\square = 55$
- Out of 600 computers produced in a factory, 30 failed to pass inspection due to bad disk drives. What percent failed to pass inspection?
- There are 12 girls with blond hair in Katya's gymnastics class. This is 25% of the entire class. Using mental math, calculate the total number of students in the class.
- About 14% of Canadians who are at least 100 years old live in British Columbia. On the 2001 census, 531 people in British Columbia said they were at least 100 years old. About how many Canadians were at least 100 years old in 2001?

- A dealer paid \$6000 for a used car. The dealer wants to make a profit that is 25% of the price he paid for the car.
  - What profit does the dealer want to make?
  - For how much should the dealer sell the car?
- If Sarah's mother really likes the service in a restaurant, she leaves a 20% tip. The family's last bill was \$110, and Sarah's mother left \$22 for the tip. Did she really like the service? Explain.
- There are four common blood types: O, A, B, and AB. The diagram below shows the percent of people with each blood type in a specific group. In a group of 2500 people, how many would you expect to have each blood type?



- A new process in a factory has increased production by 12%. Workers are now producing 30 more skateboards each day. How many skateboards did they produce each day before the new process was introduced?
- Explain how you could use a proportion to express  $\frac{165}{250}$  as a percent.