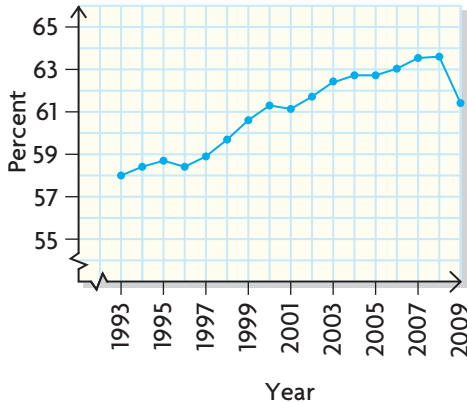


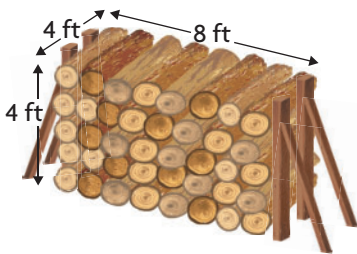
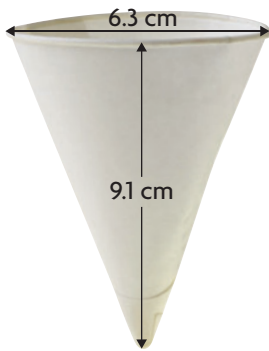
Rate of Employment between 1993 and 2009



Source: Statistics Canada, Labour Force Survey

- This graph shows the percent of Canadians who worked (the rate of employment) between 1993 and mid-2009.
 - When was the rate of employment increasing? When was it decreasing?
 - Identify when the employment rate did not change.
 - When was the employment rate increasing the fastest? When was it increasing the slowest?
 - Suggest some factors that may influence how this rate changes with time.
- A model airplane has a scale ratio of 1 : 500. To paint the model, Michael used 5 mL of paint. Assuming the same kind of coverage for the paint, how many litres of paint would be needed to paint the actual airplane?

- A company's logo has a rectangular shape, which measures 4 cm by 6 cm, on its letterhead. The company would like to advertise in the community and has decided to put an enlargement of the logo on the boards in the local hockey rink. The size of the logo is restricted to an area no larger than 1.5 m^2 . Determine the greatest dimensions that the company could use.
- To save money, a company that makes drinking cups for dentists has decided to reduce the size of its cups by a scale factor of $\frac{3}{4}$.
 - Determine the radius, r , and the height, h , of the new cup.
 - Determine the slant height, s , of the new cup.
 - How much material does the company save for each cup it makes?
 - When filled, approximately how much less water does the new cup hold, compared with the original cup?



- A cord of wood is stacked in a pile with a volume of 128 ft^3 . Three cords of wood will be stacked in a pile with dimensions that are similar to the dimensions of the first cord. Predict how much longer the second pile will be, compared with the original pile.
- A pizza shop advertises cheese or pepperoni pizzas at the prices listed in the table.
 - Is the scale factor used for price the same as the scale factor used for the diameter, area, or volume? Explain.
 - Determine the "best buy"—the diameter that gives the most pizza for the least cost.

Diameter (in.)	Price (\$)
10	6
12	8
14	10

WHAT DO You Think Now? Revisit **What Do You Think?** on page 443. How have your answers and explanations changed?