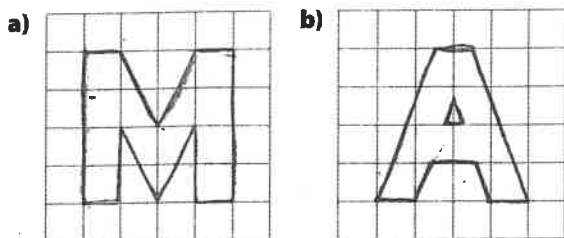


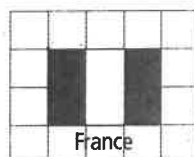
Practise

For help with #4 and #5, refer to Example 1 on pages 131–132.

4. Use a scale factor of 2 to enlarge each letter.

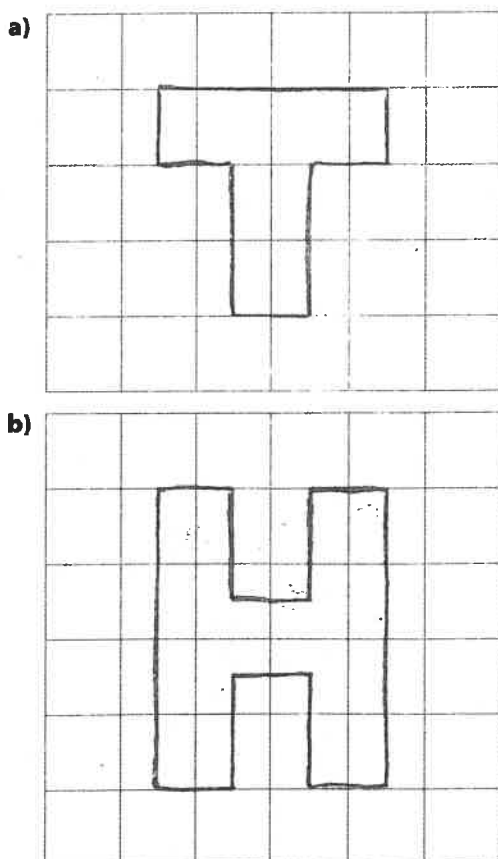


5. Draw an enlargement of the flag using a scale factor of 4.



For help with #6 to #8, refer to Example 2 on pages 133–134.

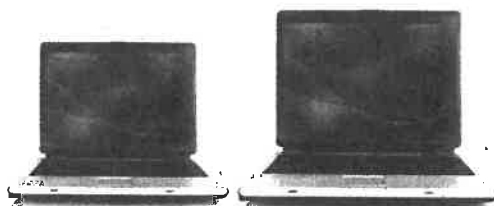
6. Use a scale factor of 0.5 to draw a reduction of each letter.



7. For the image on the right in each pair of pictures, indicate if the scale factor is
- greater than 1
 - less than 1
 - equal to 1

Explain how you know.

a)



b)



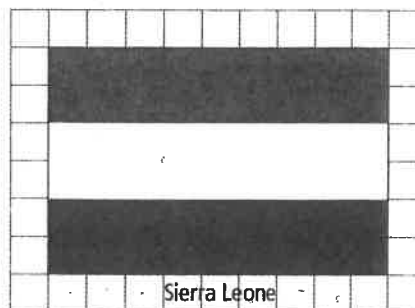
c)



WWW Web Link

To explore enlargements and reductions of images graphically or numerically by using a scale factor, go to www.mathlinks9.ca and follow the links.

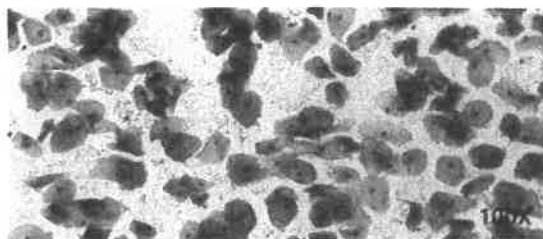
8. Draw an image of the flag using a scale factor of $\frac{1}{3}$.



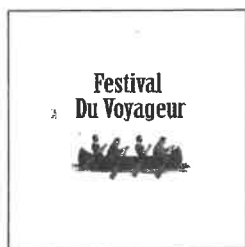
Apply

9. Melissa is observing a slide of human cheek cells under the microscope.

- Is this an enlargement or a reduction? Explain your reasoning.
- What is the scale factor? Explain its meaning.



10. Hassan and Mia made posters for the *Festival du Voyageur*. What is the scale factor on Mia's poster compared to Hassan's poster? Explain your reasoning.



Hassan



Mia

Did You Know?

In 1969, the *Festival du Voyageur* was founded in Saint Boniface. The event has grown from three days held in Winnipeg's French Quarter to a ten-day, province-wide celebration every February. This festival celebrates the *joie de vivre* of the fur traders who established the Red River colony and the growing French-Canadian community in western Canada. The Festival encourages people to appreciate the beauty of winter by participating in historical and entertaining activities.



11. How can you determine if Figure B is a true reduction of Figure A?

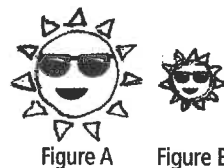


Figure A

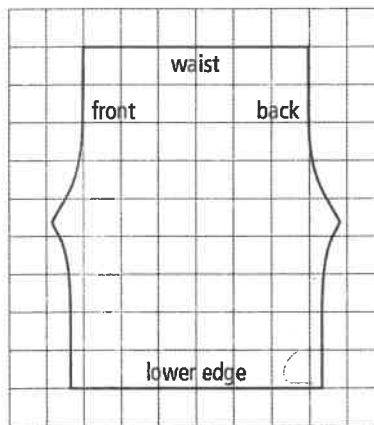
Figure B

12. The ratio of the length to the width of the Canadian flag is 2:1. Assume that you have a flag that is 9 cm wide.



- What are the dimensions of a flag that has a scale factor of 3?
- What are the dimensions of a flag that has a scale factor of 0.5?

13. For the Heritage Fair, Chloe wants to sew miniature replicas of traditional hunting dress. The pattern piece below is for making pants. She wants to make three different sizes of the pants using the pattern. Use a scale factor of 0.5, 2, and 3 to draw each size.



Extend

14. Draw an enlargement of the quadrilateral on grid paper using a scale factor of 2.

