# Photograph Cropping

An original a photographic image on a 10.5-centimeter by 8.2-centimeter background is to be reduced to 80% of its original area by cutting off (cropping) equal strips on all four sides. What is the width of the strip that is cut from each side?



“JAC” photo by Nancy Fleming

1. What is the original area of the picture?
2. What is area of the new (cropped) picture?
3. Find an algebraic expression for the length of the new (cropped) picture?
4. Find an algebraic expression for the width new (cropped) picture?
5. Define an equation that will help you determine the width of the strips that were cut off to give the cropped picture.
6. Solve the equation and interpret the results.