## PRODUCTION FOR VICTORY

## **INTRODUCTION**

This activity will give students experience using math to estimate the scale of manufacturing required for World War II. Students at this age need to learn to generalize using mathematics in other subjects, just as in earlier grades they learned how to apply reading skills in other subjects.

## **STANDARDS**

This activity is a chance for students to apply their math skills in science or social studies contexts. It supports the CCSS for Math, Math Practice 1 (making sense of problems and persevering in solving them), and Math Practice 2 (reason abstractly and quantitatively). It also engages students in the Science and Engineering Practice of Using Mathematics and Computational Thinking.

NAME: DATE:

## PRODUCTION FOR VICTORY

Socks were made of wool in 1941. In fact, most clothes were made of natural fibers like cotton, wool, and silk at the time. How much wool would it take to make socks for the 16 million US soldiers in World War II?



South African soldiers drying wool socks and blankets in the sun after six rainy days in Italy, November 1944. (*The National WWII Museum, 2007.048.432*)

One pair of socks has about 2.0 oz of wool in it. If a soldier has seven pairs of socks, how much wool is needed (use estimation)? What is the metric equivalent of the amounts involved?

There are 16 oz in a pound, so how many pounds of wool is that (use estimation)? What is the metric equivalent of the amounts involved?

How many pounds of wool will it take to make a week of socks for all 16 million soldiers (use estimation)? What is the metric equivalent of the amounts involved?

If one sheep produces 20 pounds of wool in a year, how many sheep will be needed to get all that wool in one year (use estimation)? What is the metric equivalent of the amounts involved?