## SE: Geology Rocks Equations

$\mathrm{N}_{\text {AME }}$ $\qquad$

Mr. Anderson is a geologist and has a laboratory full of rocks. He knows that each rock weighs exactly one pound ( +1 ), and he would like to figure out how many rocks are in each crate. To figure that out without opening the crates, Mr. Anderson places crates and rocks on a scale until they are balanced. Using his math skills, he is able to reason how many rocks are in each crate without having to look inside.

1. The following picture represents the first set of crates and rocks Mr. Anderson put on the balance. How many rocks are inside each crate?


Mr. Anderson has made several picture representations on his clipboard of other combinations of crates and rocks that balanced. Can you figure out how many rocks are in each set of crates?

## Georgia Department of Education

Common Core Georgia Performance Standards Framework Seventh Grade Mathematics • Unit 2
2.

3.

4.

5.


MATHEMATICS • GRADE 7 • UNIT 2: Expressions and Equations
Georgia Department of Education
Dr. John D. Barge, State School Superintendent July 2014 • Page 57 of 80 All Rights Reserved

## Georgia Department of Education

Common Core Georgia Performance Standards Framework

Mr. Anderson wrote down the following equations, but did not draw any pictures. Can you find the value of $x$ in each? (Hint: Think of each $x$ as a crate of rocks.)
6. $7 x=6+5 x$
7. $30=4 x+6$
8. $2(x+4)=16$
9. $7+5 x=3 x+13$


