LESSON 4.2

NAME _____ DATE _____

Real Life Application: When Will I Ever Use This?

For use with pages 210–217

Community Service

Community service has become a significant part of high school education. In California, a group called Youth Community Service has been created to connect service to the academic curriculum of nine local schools. Activities include tutoring, service immersion projects, and partnerships with community-based organizations. Some of the benefits for student participants include an increased sense of self-esteem, increased interest in school, cross-cultural opportunities and training, enhanced academic and social skills, and a place to address important issues.

In Exercises 1–6, use the following information.

A school district encourages students to get involved in the community by offering credits for community service hours. The school district offers 0.25 credit for each 45 hours of service. Some examples of how these hours can be earned include volunteering at local senior citizen retirement centers, working with the school's custodial staff, and cleaning up local parks.

Devo'n is a freshman who would like to earn a full credit of service by the time he graduates by volunteering to work at a senior citizen retirement center and with the school's custodial staff. An algebraic model for the number of hours worked during his freshman year is $x + y = 45$, where x is the number of hours he worked at the senior citizen retirement center and y is the number of hours he worked at school with the custodial staff.

1. Rewrite the equation $x + y = 45$ in function form.

2. Use the equation in function form from Exercise 1 to make a table of values for $x = 5$, $x = 15$, $x = 25$, $x = 35$, and $x = 45$.

3. Use the table of values from Exercise 2 to graph the equation.

4. Devo'n ends up working twice as many hours at the senior center than with the school's custodial staff. If he worked a total of 45 hours, how many were spent with the custodial staff?

5. Devo'n decides to spend all of his 45 hours working with the school's custodial staff his sophomore year. Write an equation that models his hours worked.

6. Graph your equation from Exercise 5. What type of line is this?