

Our representation in the spotlight is the equation. This representation has become very familiar to your child over the course of his/her education so far. In early elementary school, your child may have seen equations such as

Spotlight on a representation frequently used in this module:

Equation

There are several models used in _____ that will foster deep knowledge of important concepts in middle school mathematics.

In Module 1, there are three commonly used tools and representations that your child will frequently use: ratio tables, coordinate planes, and equations. Ratio tables are frequently used to show an organized list of related ratios. For example, in the ratio table above, your child is able to see how the number of cups of juice is one third of the number of cups of blackberries or if the number of cups of juice is multiplied by _____, the number of cups of blackberries is determined. In Grade 6, students recognized the multiplicative and additive structures that exist within ratio tables. The coordinate plane is another way to represent a relationship and an easy way to determine whether a relationship is proportional. Equations represent information in a clear and concise way so your child is able to quickly solve problems and make predictions.

Although each of these tools are different, they all have a similar goal of helping your child develop his/her thinking in a concrete way (manipulating something that physically exists) so he/she experiences a direct connection between the models and math symbols and is able to solve problems abstractly. In _____, your child will use the proportional reasoning skills that he/she develops in this module to propel your child into success in the modules yet to come!

Below is a problem that shows different representations of the same proportional relationships with a description of how students can recognize it as such.

* Taken from Lesson *

Solution:

Problem:

The school library receives money for every book sold at the school's book fair. Create a table and then graph and explain if the quantities are proportional.

Graph:

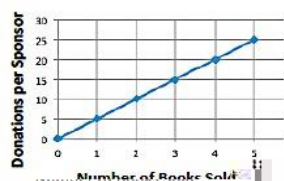


Table:

Number of Books Sold	Number of Donations
0	0
1	5
2	10
3	15
4	20
5	25

Explanation:

The quantities are proportional to each other because the points on the graph form a straight line that passes through the origin. For every 1 book sold, the library brings in \$5.00 no matter how many books are sold.