



CALVERT
PUBLICATIONS

5th Grade

SAMPLES

Problems in Power

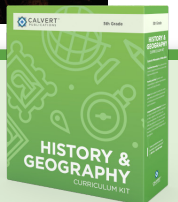
Immigration. In the past, the United States of America was called a “melting pot” because immigrants from all over the world have come here. They brought their ways, ideas, music, and food with them. The term “melting pot” is used less often today because it describes a process of all the different cultures melting into the American culture. While many people who immigrate to the U.S. do begin to speak English, enjoy American foods, and pick up some American habits, they usually also retain their own cultures, enjoying foods, religions, traditions, and more that come from their original country. Americans born in the U.S. also enjoy learning new languages, eating new foods, listening to new music, and learning about new traditions that come from other cultures, brought by immigrants from all over the world.

The huge growth of industry after the Civil War created a need for workers, and that would attract many newcomers. America became the “land of opportunity” for the desperately poor of Europe. America was a land where jobs and education could mean a better life. It was a land where poor immigrants, like Carnegie, could become millionaires. From the 1870s until the 1920s, millions of immigrants came from Europe to America. Every year during the last 30 years of the 19th century about 400,000 new arrivals came into the country.

Most of the immigrants before 1880 came from northern Europe: Germany, England, and Ireland. However, after that time more and more came from southern and eastern Europe: Hungary, Italy, Poland, and Russia. These people had a harder time fitting into American life. Their languages were much different. They usually could not read or write. They were



| Many immigrants lived in communities of people from the same country or culture.



A Growing Nation

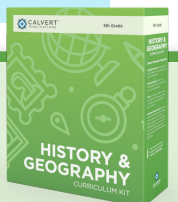
Jackson. Andrew Jackson was elected president in 1828. He was the first U.S. president who was not born into a wealthy family. He was born poor, earned his own fortune, and lived in the west (Tennessee). He was wildly popular and had strong ideas about being president. He vetoed more laws than all six of the presidents before him. The ordinary man began to be important in American politics after Andrew Jackson.

Jackson encouraged the “spoils system” which gave government jobs to his supporters. He vetoed a charter for the National Bank, which he did not trust, and took federal money out of it. The money was put in state banks (“pet banks”), and the National Bank was closed. Jackson also threatened to use force when South Carolina nullified the tariff in 1832 by refusing to allow it to be collected in their state. Henry Clay (“the Great Compromiser”) arranged for the tariff to be lowered, and Carolina backed down. Jackson also moved thousands of Native Americans from their land east of the Mississippi to Oklahoma so that American pioneers could have their land. Many died on the journey, later known as the “Trail of Tears.”

After Jackson. Andrew Jackson chose his vice president, Martin Van Buren, to run for the presidency when he retired. With Jackson’s support, Van Buren won the election in 1836. However, a depression in 1837 (also called a “panic”) made him very unpopular.



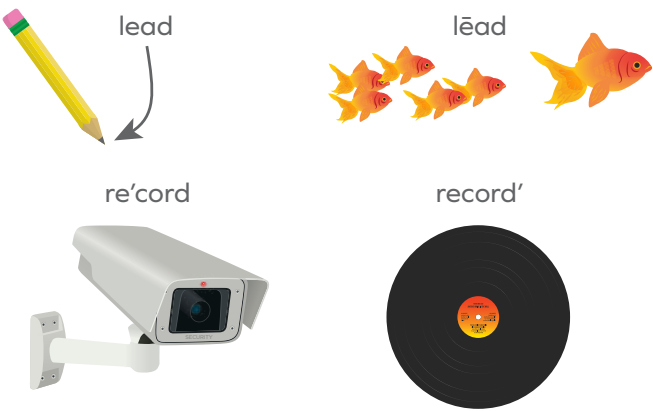
| Major acquisitions of the United States



Word and Sentence Study

In this lesson, you will learn how to pronounce words by the way they are used in a sentence. This practice is called looking for context clues. You will also read about sentences, both written and spoken. As you read through the examples below, identify the subject and the predicate. Ask yourself if the sentence expresses a complete thought.

Certain words need to be identified by the way they are used in sentences. For example, you do not know how to pronounce the word lead until you see it used in a sentence. In the sentence, "I will lead the way," the ea has the long /e/ sound. In the sentence, "The pencil was made of lead," the ea has the short /e/ sound. Words that are spelled the same but have different meanings and are pronounced differently are called **homonyms** or **heteronyms**.

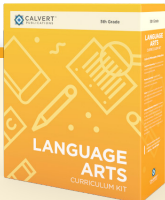


| Heteronyms

Homonyms are actually three classes of words: 1) words that sound the same but have different spellings and meaning; 2) words with exactly the same sound and spelling but can mean different things; and 3) words that are spelled the same but sound different and mean different things. A heteronym is one of two words that are spelled the same, but sound different and mean different things. For example, bass (having a deep voice) and bass (a type of fish). Bass, as in a deep voice, sounds like *base*, as in baseball. But bass, like the fish, makes the same -a sound as *grass*.

You may have noticed the pronunciation key that usually follows vocabulary. Below is a picture of a key that will help you pronounce words correctly.

PRONUNCIATION KEY			
SPELLINGS	SYMBOLS	SPELLINGS	SYMBOLS
hat	ă	cup	ŭ
age	ā	term	û
care	â	child	ch
far	ä	long	ng
let	ě	thin	th
equal	ē	then	th
it	ĩ	measure	zh
ice	ī	about	ə
hot	ö	taken	ə
open	ō	pencil	ə
order	ô	lemon	ə
oil	oi	circus	
out	ou		





The Village Blacksmith

by Henry Wadsworth Longfellow (1840)

- 1 Under a spreading chestnut-tree
The village smithy stands;
The smith, a mighty man is he,
With large and sinewy hands;
5 And the muscles of his brawny arms
Are strong as iron bands.
- His hair is crisp, and black, and long,
His face is like the tan;
His brow is wet with honest sweat,
10 He earns whate'er he can,
And looks the whole world in the face,
For he owes not any man.
- Week in, week out, from morn till night,
You can hear his bellows¹ blow;
You can hear him swing his heavy sledge,²
15 With measured beat and slow,
Like a sexton³ ringing the village bell,
When the evening sun is low.

¹air pump
²hammer
³church official



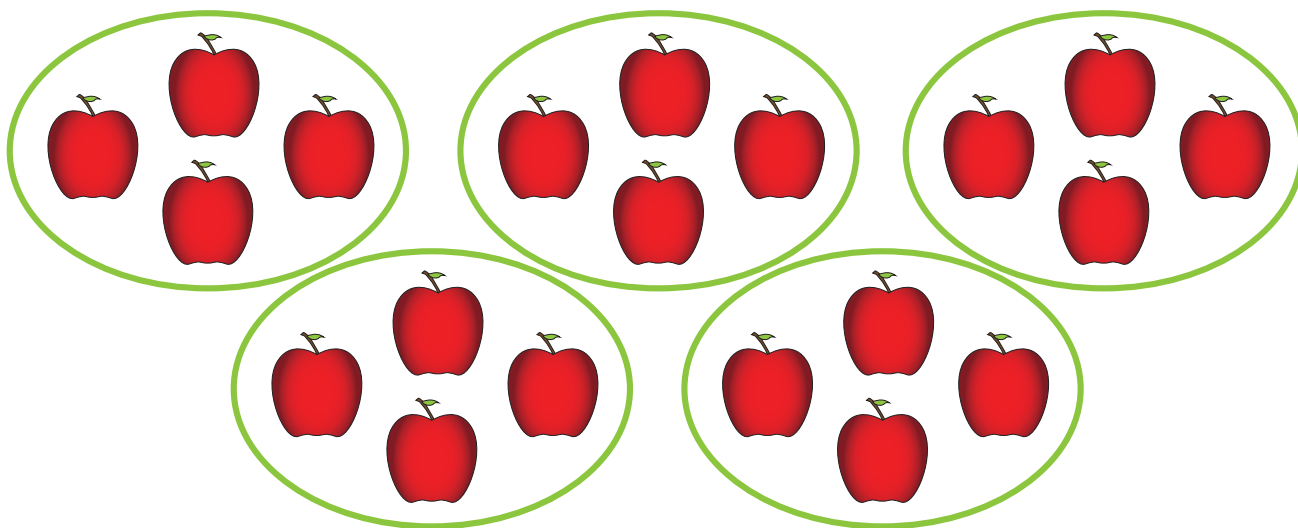
From Calvert
5th Grade
Language Arts



Dividing Decimals by Whole Numbers

Let's use an example to review what it means to divide with whole numbers. If we have 20 apples that need to be divided between 5 people, we want to see how many apples each person will get. So, the dividend, or 20, is the amount that is being divided. The divisor, or 5, is the number of groups that we are evenly splitting the dividend into. And, the quotient is the amount that will be in each group after dividing. For this example, the quotient is 4, because each person will get 4 apples. We can use a picture, or model, to show this division:

$$20 \text{ apples} \div 5 \text{ people} = 4 \text{ apples for each person}$$

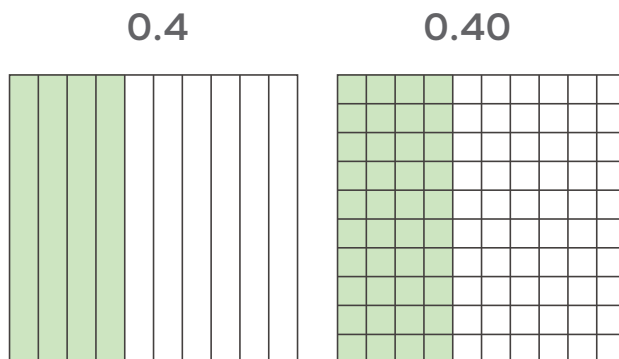


We can apply this same idea to dividing decimal numbers. In this lesson, we'll explore how to divide a decimal number into groups. We'll use models and long division to help us find quotients.

Dividing Decimal Numbers Using a Grid

Remember that a decimal number can be represented using a grid.

For example, the decimal number 0.4 can be represented on a tenths grid by shading in four tenths. Or, it can be represented on a hundredths grid by shading in forty hundredths.

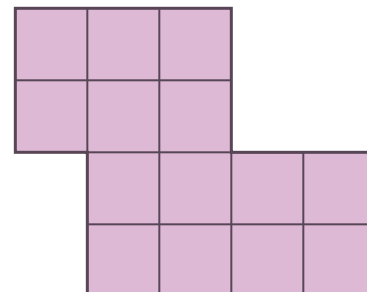


Finding the Area of Plane Figures

Our next measurement was *area*, which is measured in *square units*. We learned that area is the number of square units inside of a figure. For many plane figures, we could just count the number of squares inside the figure.

This figure has an area of 14 square units because there are 14 squares inside of the figure.

We learned that for some figures, there is a shorter way to find the area. We developed formulas for rectangles (using the length and width), and for parallelograms, and triangles (using the *base* and *height*).



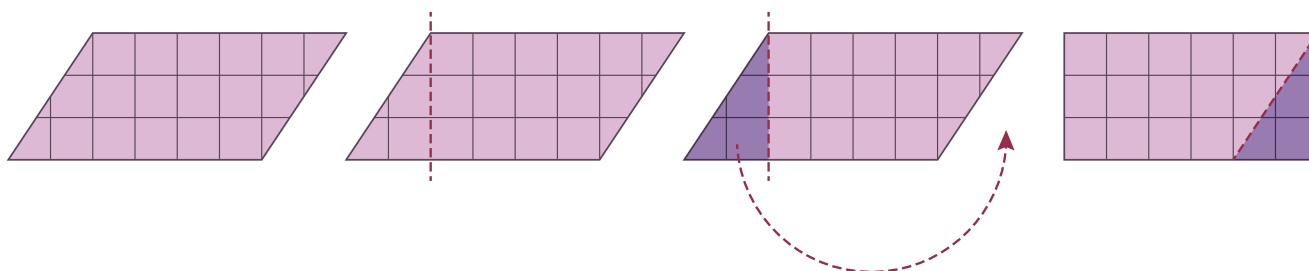
Rectangles: $A = lw$

Parallelograms: $A = bh$

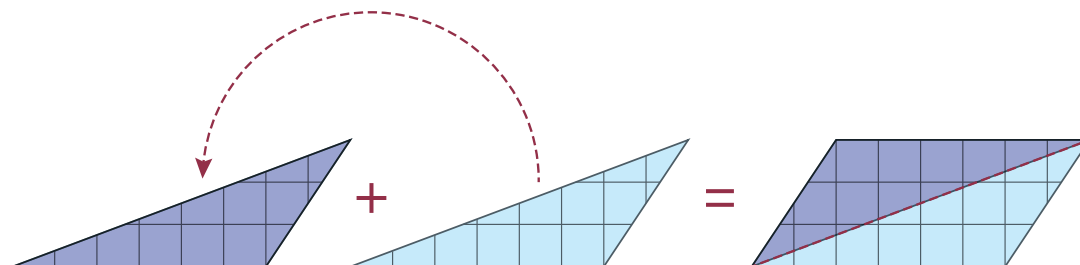
Triangles: $A = \frac{bh}{2}$

We found that each of these formulas are related. Rectangles are made up of rows of squares, so we can multiply the length (the number of squares in one row) by the width (the number of rows) to find the area.

Parallelograms can be converted to rectangles using the same length (base for parallelograms) and width (height for parallelograms).



If a triangle's area is doubled, it will form a parallelogram. So, to find its area we take half of the area of a parallelogram with the same base and height.



We used these formulas to find the area of figures that could be broken up into rectangles, parallelograms, and/or triangles.



Viewing Cells

The only way to view most cells is to use a microscope. There are different types of microscopes. An *optical microscope* is the one you will normally see and use. It can magnify a cell up to about 2,000 times so that we can easily see the basic parts of the cell. However, some cells are too small to be seen by an optical microscope. For these, an *electron microscope* is needed. An electron microscope can magnify a cell by one million times! These electron microscopes not only allow us to see the smallest of cells, they also allow us to view the tiny subparts of cells. (We will cover some of these subparts of cells in Section 2.)

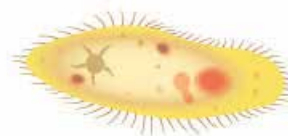
It is also helpful to use dyes to view cells. The dyes stain certain parts of the cell—such as the cell membrane and the nucleus—so that they stand out more clearly when we view the cells under a microscope. (You will use iodine as a dye in some of the experiments.)



| Optical microscope



| Muscle cells



| Paramecium



| Red blood cell



| Nerve cell



| Diatom



Worms. Worms are animals that have soft, slender bodies and no backbone or legs. There are thousands of different kinds of worms. The largest worms are several feet long, and the smallest ones cannot be seen without a microscope.

Worms have no outside covers or bones to give them protection. Since worms have no protective structures, they live in places that are safer for them. Most of their lives are spent under the ground, in water, or inside other animals.

The larvae of some insects sometimes look like worms, but they are not really worms. There are big differences in the life cycles of real worms and the larvae of insects. Larvae will change into adult insects sometime during the life cycle. The adult insects no longer look like worms. Worms will stay worms all their lives. The adult worms can reproduce. Insect larvae cannot reproduce.

The most commonly known worm is the earthworm. **Flukes**, flatworms, roundworms, tapeworms, and leeches are other types of worms. Most of these worms have similar types of life cycles. However, some life cycles of worms cannot be completed unless the worms are located in the right place. The need for the right place to live is especially important to worms who live in other animals. These worms that live in other animals are known as **parasites**. The animal where the parasite lives is called the **host**.

