



Decimals

Key vocabulary	
Decimal	A decimal number can be defined as a number whose whole number part and the fractional part is separated by a decimal point
Tenths	Children understand that a tenth is a part of a whole split into 10 equal parts. 0.1 as a decimal and 1/10 as a fraction.
Hundredths	Children understand that a hundredth is a part of a whole split into 100 equal parts. 0.01 as a decimal and 1/100 as a fraction.
Decimal point	A 'dot' that separates the whole number from the fractional part e.g 2.4. The digits following the decimal point show a value smaller than one.

Decimals as tenths

Image	Words	Fraction	Decimal
	Six tenths	6/10	0.6
	Two tenths	2/10	0.2

Decimals as hundredths

Image	Words	Fraction	Decimal
	Seven hundredths	7/100	0.07
	Seventy hundredths	70/100 or 7/10	0.7

Dividing by 10

To divide the number by 10, we move the counters one column to the right.

Tens	Ones
8	5

$$\div 10$$

	Tens	Ones	Tenths
	8	5	

(Arrows in the original image show the 8 moving from Ones to Tenths and the 5 moving from Ones to Tenths, both labeled ÷ 10)

Dividing by 100

To divide the number by 100, we move the counters two columns to the right.

Tens	Ones
8	5

$$\div 100$$

	Tens	Ones	Tenths	Hundredths
		0	8	5

(Arrows in the original image show the 8 moving from Ones to Tenths and the 5 moving from Ones to Hundredths, both labeled ÷ 100)

Fraction to Decimal Equivalences

	=	$\frac{1}{2}$	=	0.5
	=	$\frac{1}{4}$	=	0.25
	=	$\frac{3}{4}$	=	0.75
	=	$\frac{1}{10}$	=	0.1

Comparing Decimals

Ones	Tenths	Hundredths
0	3	4

Ones	Tenths	Hundredths
1	0	2

Partitioning

0.65	0.65
0.6 0.05	0.5 0.15

Making a whole

1	1
0.58 0.42	0.37 0.63

