

## Types of decimal numbers

Read the definitions. Then drag and drop. IRRATIONAL - EXACT - RECURRING

An **exact** or **terminating** decimal is one which does not go on forever, so you can write down all its digits. For example: 0.125.

A **recurring** decimal is a decimal number which does go on forever, but where some of the digits are repeated over and over again. For example: 0.125252525... is a recurring decimal, where '25' is repeated forever.

Sometimes recurring decimals are written with a bar over the digits which are repeated, or with dots over the first and last digits that are repeated. For example:  $3.2014014014... = 3.\overline{2014} = 3.2\dot{0}1\dot{4}$

**Irrational** numbers are those which go on forever and don't have digits which repeat. For example:  $\sqrt{2} = 1.4142135...$ ,  $\pi = 3.14159265...$

millions	9,000,000.0	ones	9.0
hundred thousands	900,000.0	tenths	0.9
ten thousands	90,000.0	hundredths	0.09
thousands	9,000.0	thousandths	0.009
hundreds	900.0	ten thousandths	0.0009
tens	90.0	hundred thousandths	0.00009
ones	9.0	millionths	0.000009

Fill in the following table:

Twenty-six thousandths	0.026
	0.0009
Sixty ones and three tenths	
Fifty-eight ones and forty-two hundred thousandths	

1. Fill in the table:

	Round to the ones	Round to the tenths	Round to the hundredths	Round to the thousandths
23,0581	23	23,1		
0,9417				
9,7402				
123,5708				