Round Decimals

I Can) use place value to round decimals to a given place.

Florida's B.E.S.T.

- Number Sense & Operations 5.NSO.1.5
- Mathematical Thinking & Reasoning MTR.2.1, MTR.3.1, MTR.4.1, MTR.5.1, MTR.6.1



UNLOCK the Problem

The Gold Frog of South America is one of the smallest frogs in the world. It is 0.386 of an inch long. What is this length rounded to the nearest hundredth of an inch?

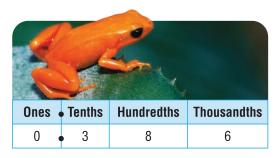
One Way Use a place-value chart.

- Write the number in a place-value chart and circle the digit in the place to which you want to round.
- In the place-value chart, underline the digit to the right of the place to which you are rounding.
- If the digit to the right is less than 5, the digit in the place to which you are rounding stays the same. If the digit to the right is 5 or greater, the digit in the rounding place increases by 1.
- Drop the digits after the place to which you are rounding.

So, to the nearest hundredth of an inch, a Gold Frog is

about inch long.

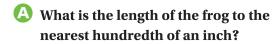
- Underline the length of the Gold Frog.
- Is the frog's length about the same as the length or the width of a large paper clip?



Think: Does the digit in the rounding place stay the same or increase by 1?

Another Way Use place value.

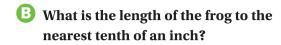
The Little Grass Frog is the smallest frog in North America. It is 0.437 inch long.



$$0.437$$
 $7 > 5$
 \downarrow
 0.44

So, to the nearest hundredth of an inch, the frog

is about _____ inch long.



$$\begin{array}{ccc} \textbf{0.437} & \textbf{3} < \textbf{5} \\ \downarrow \\ \textbf{0.4} \end{array}$$

So, to the nearest tenth of an inch, the frog is

about _____inch long.

Example

The Goliath Frog is the largest frog in the world. It is found in the country of Cameroon in West Africa. The Goliath Frog can grow to be 11.815 inches long. How long is the Goliath Frog to the nearest inch?

STEP 1 Write 11.815 in the place-value chart.

Tens	Ones d	Tenths	Hundredths	Thousandths

STEP 2 Find the place to which you want to round. Circle the digit.

STEP 3 Underline the digit to the right of the place to which you are rounding. Then round.

Think: Does the digit in the rounding place stay the same or increase by 1?

So, to the nearest inch, the Goliath Frog is about _____ inches long.





Engage in discussions on mathematical thinking.

How would your answer change if the frog were 11.286 inches long?

MTR Explain why any number less than 12.5 and greater than or equal to 11.5 would round to 12 when rounded to the nearest whole number.

Try This! Round 14.603 to the place named.

A hundredths

Tens	Ones (Tenths	Hundredths	Thousandths
	•			

Circle and underline the digits as you did above to help you round to the nearest hundredth.

So, 14.603 rounded to the nearest hundredth is ______.

B ones

108

Jues •	lenths	Hundredths	Thousandths
	Jiles •	Jues • Tentus	Ones • Tenths Hundredths

Circle and underline the digits as you did above to help you round to the nearest whole number.

So, 14.603 rounded to the nearest ones is ______.