

Place Value

Ones	Tenths	Hundredths	Thousandths
2	5	3	4

Standard Form

2.534

Word Form

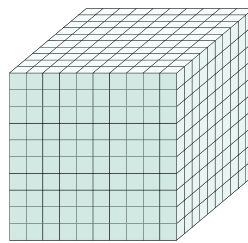
Two and Five Hundred thirty-four thousandths

Places: Each digit has a place. 2 is in the ones place. A decimal point separates the whole number places from the places that are less than one.

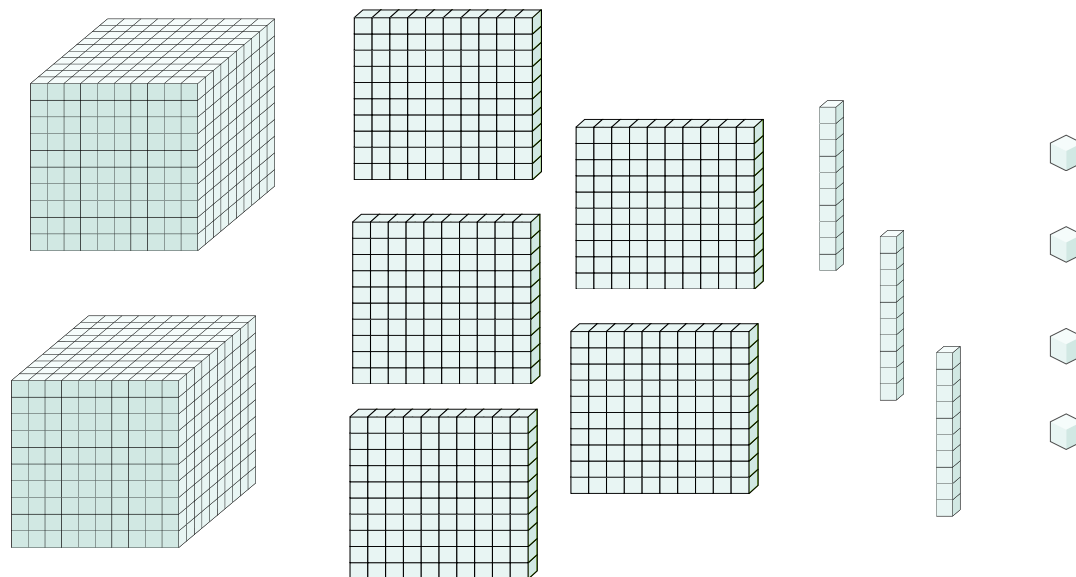
The 5 is in the tenths place. 3 is in the hundredths place. 4 is in the thousandths place.

Value: The place of the digit gives it a value. In this number, the 2 has a value of 2, the 5 has a value of 0.5, the 3 has a value of 0.03, and the 4 has a value of 0.004

In the model below,



= 1 whole.



This model represents 2.534.

Valor posicional

Unos	Décimas	Centésimas	Milésimas
2	5	3	4

Forma estándar

2.534

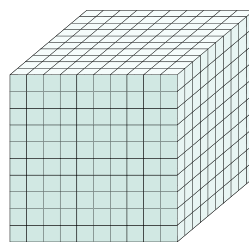
Forma de la palabra

dos con quinientas
treinta y cuatro
milésimas

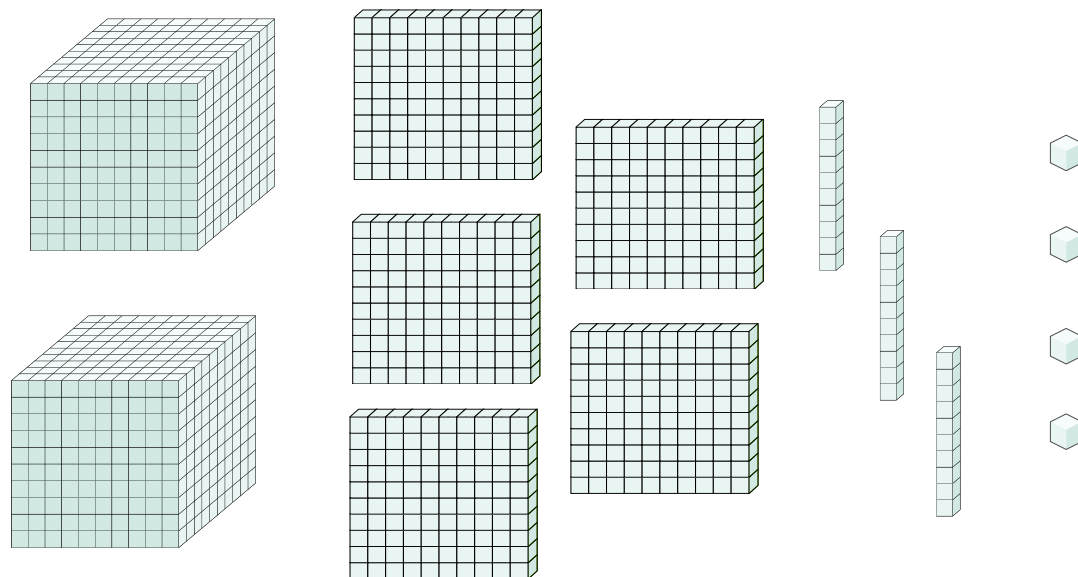
Lugares: Cada dígito tiene un lugar. 2 está en el lugar de las unidades. Un punto decimal separa los lugares de los números enteros de los lugares que son menores que uno. El 5 está en el lugar de las décimas. 3 está en el lugar de las centésimas. 4 está en el lugar de las milésimas.

Valor: El lugar del dígito le da un valor. En este número, el 2 tiene un valor de 2, el 5 tiene un valor de 0,5, el 3 tiene un valor de 0,03 y el 4 tiene un valor de 0,004.

En el modelo siguiente,



= 1 entero.



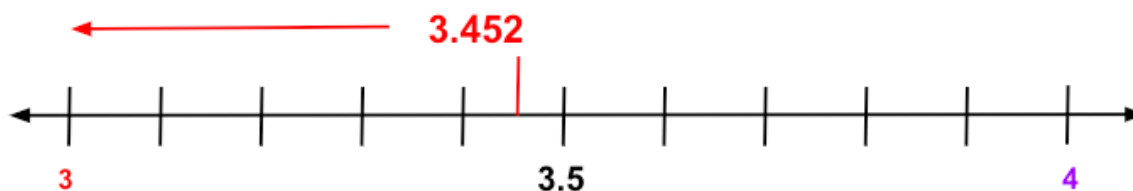
**Este modelo
representa
2.534.**

Rounding

Rounding is an estimation strategy that is often used to assess the reasonableness of a solution.

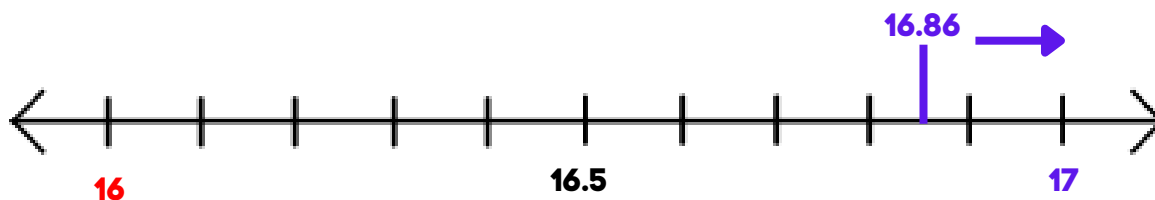
When rounding a number to the nearest whole (or ones place), we must determine which two whole numbers it lies between. Then, we determine which of the whole numbers it is closest to.

3.452 rounded to the nearest whole number.



3.452 is between 3 and 4. It is closer to 3, so 3.452 rounds to 3.

16.86 rounded to the nearest whole number.



16.86 is between 16 and 17. It is closer to 17, so 16.86 rounds to 17.

The pizza costs
about \$3.00.

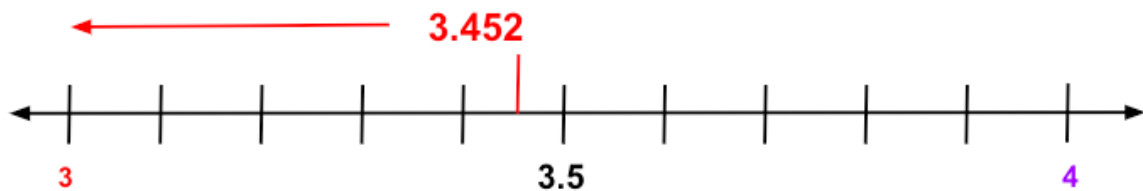


redondeo

El redondeo es una estrategia de estimación que se utiliza a menudo para evaluar la razonabilidad de una solución.

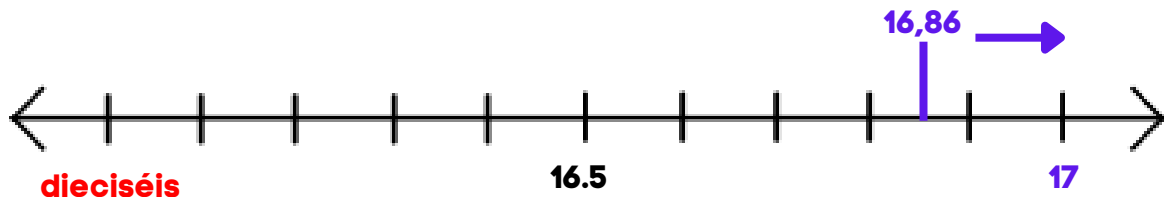
Al redondear un número al entero más cercano (o al lugar de la unidad), debemos determinar entre cuáles dos números enteros se encuentra. Luego, determinamos a cuál de los números enteros está más cerca.

3,452 redondeado al número entero más cercano.



3,452 está entre 3 y 4. Está más cerca de 3, por lo que 3,452 se redondea a 3.

16,86 redondeado al número entero más cercano.



16,86 está entre 16 y 17. Está más cerca de 17, por lo que 16,86 se redondea a 17.

La pizza cuesta
alrededor de
\$3,00.



Comparing and Ordering Decimals

Two numbers can be compared using symbols.

Symbol	Meaning	Example
=	is equal to	$0.1 = \frac{1}{10}$
$\neq$	is not equal to	$0.11 \neq \frac{1}{10}$
>	is greater than	$0.1 > 0.01$
<	is less than	$0.05 < 5$

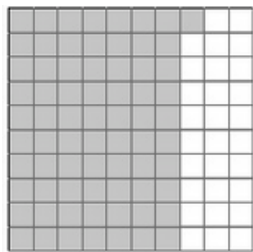
0.24 is less than 0.48 $\rightarrow$ **$0.24 < 0.48$**

0.9 is greater than 0.27 $\rightarrow$ **$0.9 > 0.27$**

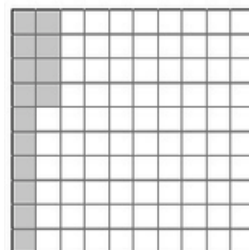
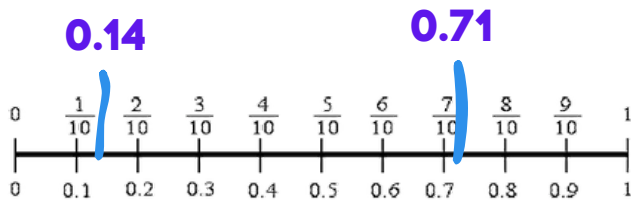
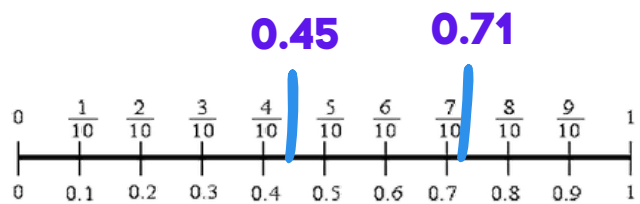
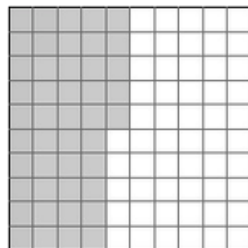
0.24 is equal to 0.240 $\rightarrow$ **$0.24 = 0.240$**

0.24 is not equal to 0.024 $\rightarrow$ **$0.24 \neq 0.024$**

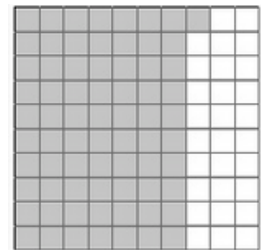
Models can be used to compare decimals.



>



<



Comparar y ordenar decimales

Se pueden comparar dos números usando símbolos.

Symbol	Meaning	Example
=	is equal to	$0.1 = \frac{1}{10}$
$\neq$	is not equal to	$0.11 \neq \frac{1}{10}$
>	is greater than	$0.1 > 0.01$
<	is less than	$0.05 < 5$

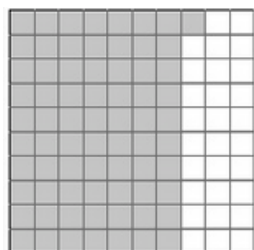
0.24 es menor que 0.48 ➔ **0,24 < 0,48**

0.9 es mayor que 0.27 ➔ **0,9 > 0,27**

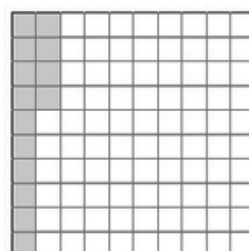
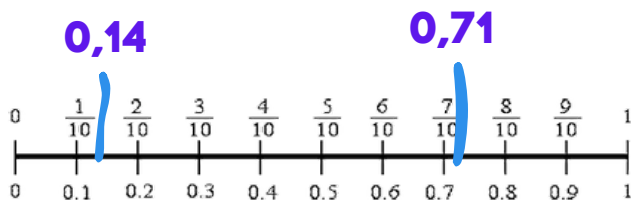
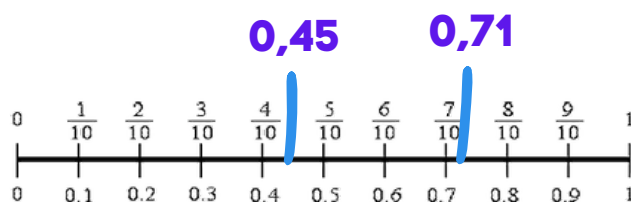
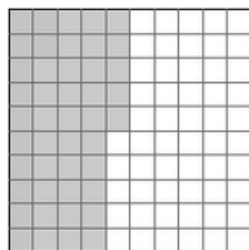
0.24 es igual a 0.240 ➔ **0,24 = 0,240**

0.24 no es igual a 0.024 ➔ **0,24 $\neq$ 0,024**

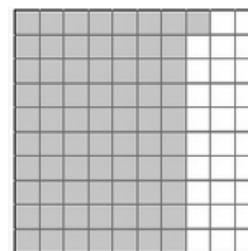
Se pueden utilizar modelos para comparar decimales.



>

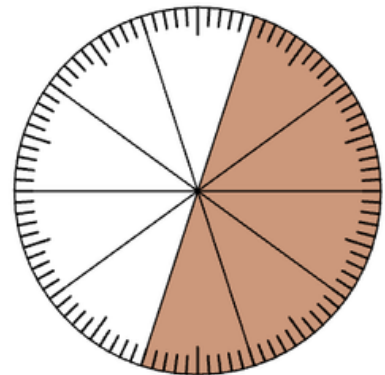
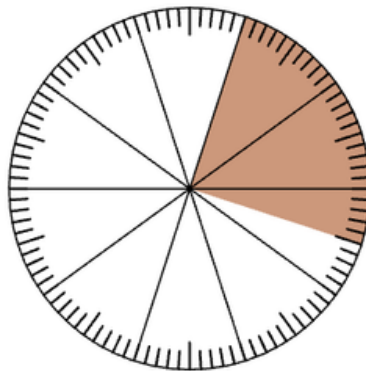
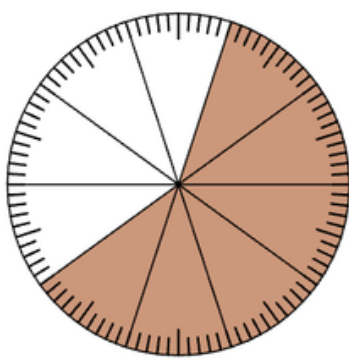
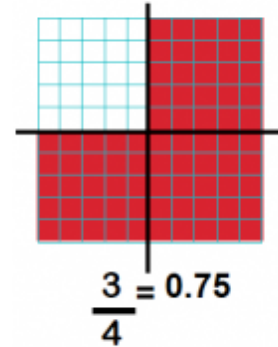
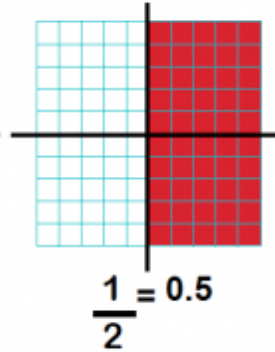
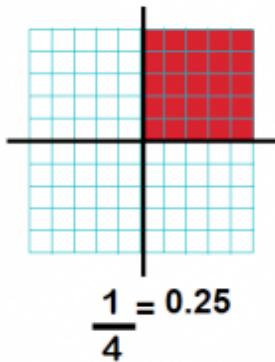


<



Equivalent Fractions and Decimals

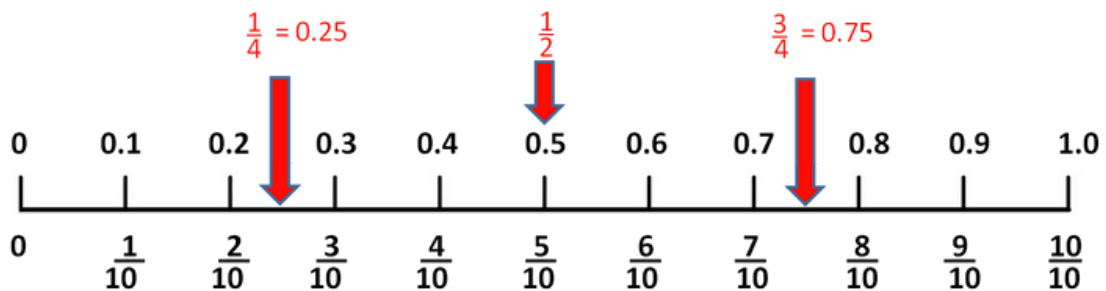
An amount less than one whole can be represented by a fraction or by an equivalent decimal.



$$\frac{3}{5} = \frac{60}{100} = 0.6$$

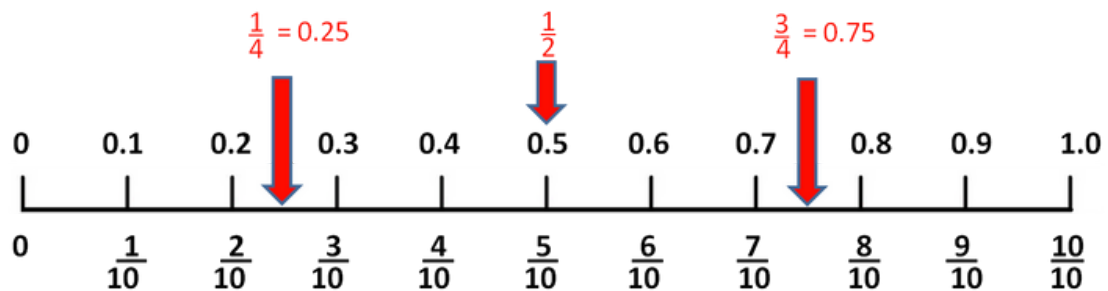
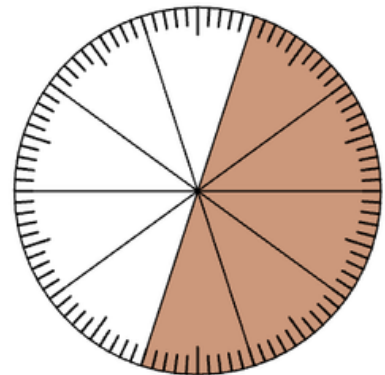
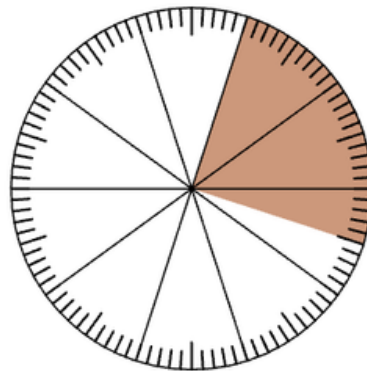
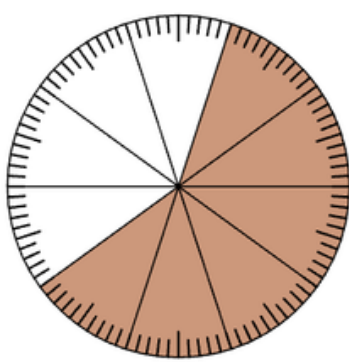
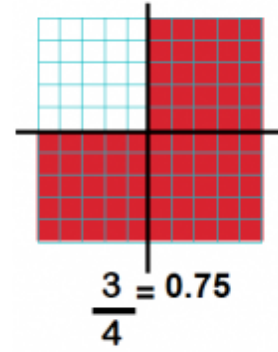
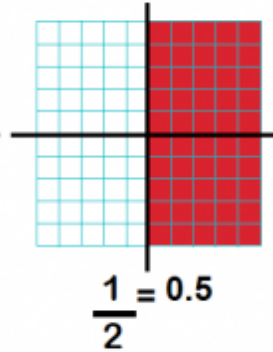
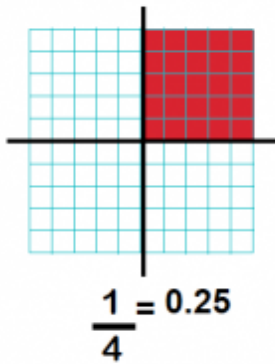
$$\frac{1}{4} = \frac{25}{100} = 0.25$$

$$\frac{1}{2} = \frac{50}{100} = 0.5$$



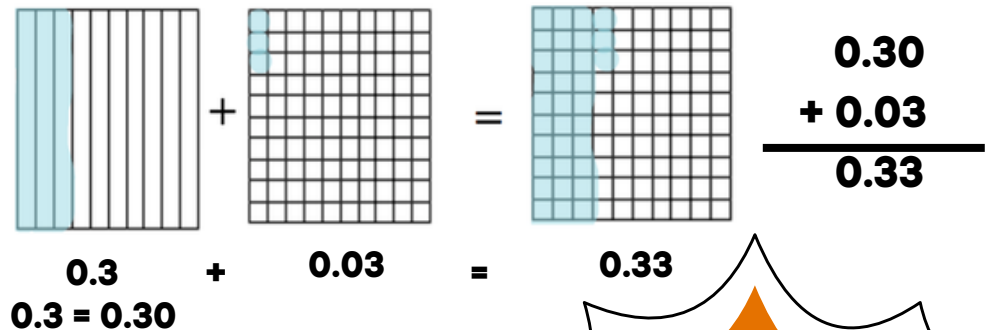
Fracciones equivalentes y decimales

Una cantidad inferior a un entero se puede representar mediante una fracción o mediante un decimal equivalente.

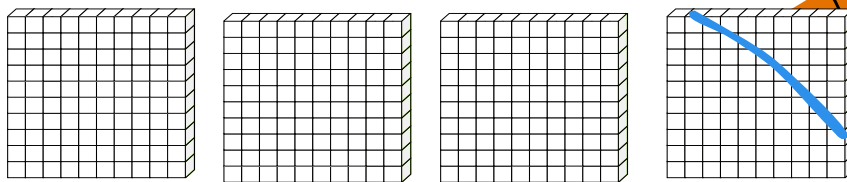


Adding and Subtracting Decimals

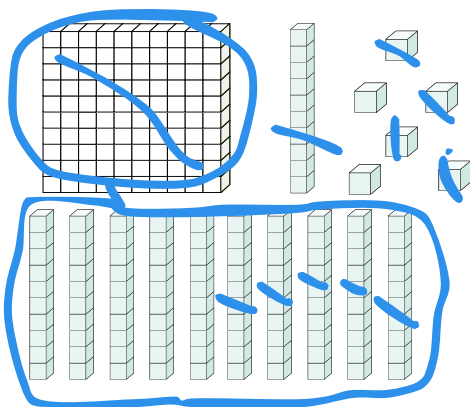
You can use models to help with adding and subtracting decimals. Just like with fractions, you must add decimals with like denominators or place values.



$$5.16 - 1.64 = 3.52$$

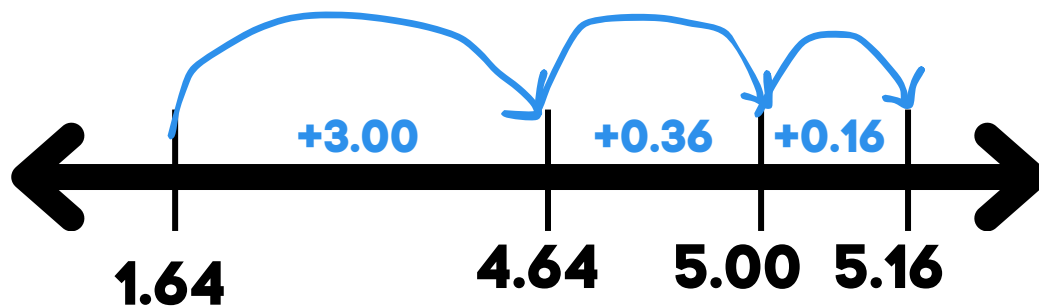


Estimate first for reasonableness
 5.16 is about 5 and 1.64 is about 1.5. So, the answer should be about 3.5.



$$\begin{array}{r} 4 \quad 11 \\ \cancel{5} + \cancel{0.1} + 0.06 \\ - 1 + 0.6 + 0.04 \\ \hline 3 + 0.5 + 0.02 = 3.52 \end{array}$$

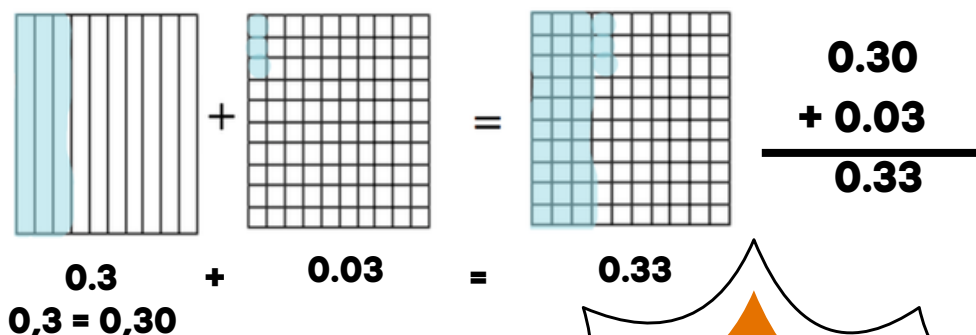
$$3.00 + 0.36 + 0.16 = 3.52$$



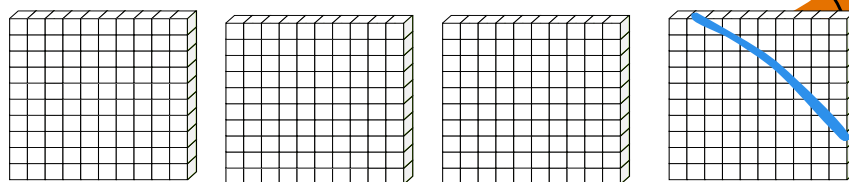
$$\begin{array}{r} 4 \quad 11 \\ \cancel{5.16} \\ - 1.64 \\ \hline 3.52 \end{array}$$

Sumar y restar decimales

Puedes usar modelos para ayudarte a sumar y restar decimales. Al igual que con las fracciones, debes sumar decimales con denominadores o valores posicionales similares.

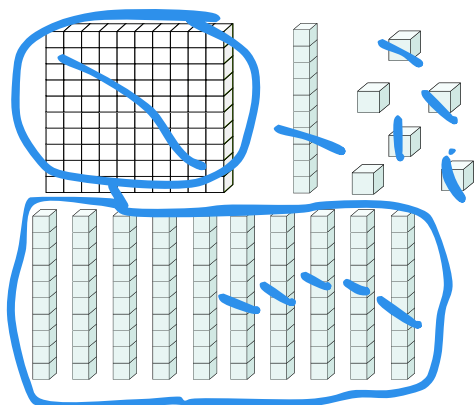


$$5.16 - 1.64 = 3.52$$



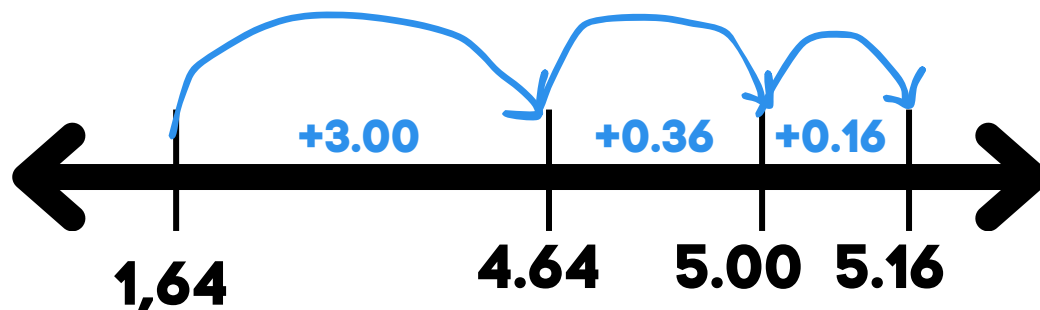
Estimar primero por razonabilidad

5,16 es aproximadamente 5 y 1,64 es aproximadamente 1,5. Entonces, la respuesta debería ser aproximadamente 3,5.



$$\begin{array}{r} 4 \quad 11 \\ \cancel{5} + \cancel{0.1} + 0.06 \\ - 1 + 0.6 + 0.04 \\ \hline 3 + 0.5 + 0.02 = 3.52 \end{array}$$

$$3.00 + 0.36 + 0.16 = 3.52$$



$$\begin{array}{r} 4 \quad 11 \\ \cancel{5.16} \\ - 1.64 \\ \hline 3.52 \end{array}$$

How to Help at Home

- **Shopping Estimation:** When shopping, have your child round the price of items and estimate how much the total will be at the end of checkout to the nearest whole number.
- **Matching Rounding Game:** Using index cards, have your child write decimal numbers through thousandths on each card (about 10 cards total). Then, round each number and write the rounded number to the nearest whole number on another 10 index cards with the value that is being rounded to. Mix up the cards and place them face down. Picking two cards at a time, play a matching game until all the cards have been paired.
- **Money:** Coins are fractions of a dollar and are expressed as decimal values. Talk to your child about times when decimal points are important in the real world.
- **Practical Problems:** Have your child create some practical problems with decimals where they would need to add or subtract and have them estimate and then solve them using different strategies.
- **Matching Fractions and Decimals:** Make a matching game with your child where they write down the decimal equivalent with halves, fourths, fifths, and tenths on one card and the fraction on another card. Mix them up and place them face down. Picking two cards at a time, play a matching game until all the cards have been paired.

Cómo ayudar en casa

- **Estimación de compras:** cuando compre, pídale a su hijo que redondee el precio de los artículos y calcule cuánto será el total al final de la compra al número entero más cercano.
- **Juego de redondeo de correspondencias:** usando fichas, pídale a su hijo que escriba números decimales hasta milésimas en cada tarjeta (aproximadamente 10 tarjetas en total). Luego, redondea cada número y escribe el número redondeado al número entero más cercano en otras 10 fichas con el valor al que se está redondeando. Mezcla las cartas y colócalas boca abajo. Escoge dos cartas a la vez y juega un juego de emparejar hasta que todas las cartas estén emparejadas.
- **Dinero:** Las monedas son fracciones de dólar y se expresan como valores decimales. Hable con su hijo sobre los momentos en que los puntos decimales son importantes en el mundo real.
- **Problemas prácticos:** Haga que su hijo cree algunos problemas prácticos con decimales en los que necesitaría sumar o restar y que los estime y luego los resuelva usando diferentes estrategias.
- **Emparejar fracciones y decimales:** haga un juego de emparejar con su hijo en el que escriba el equivalente decimal con mitades, cuartos, quintos y décimos en una tarjeta y la fracción en otra tarjeta. Mézclalos y colócalos boca abajo. Escoge dos cartas a la vez y juega un juego de emparejar hasta que todas las cartas estén emparejadas.