

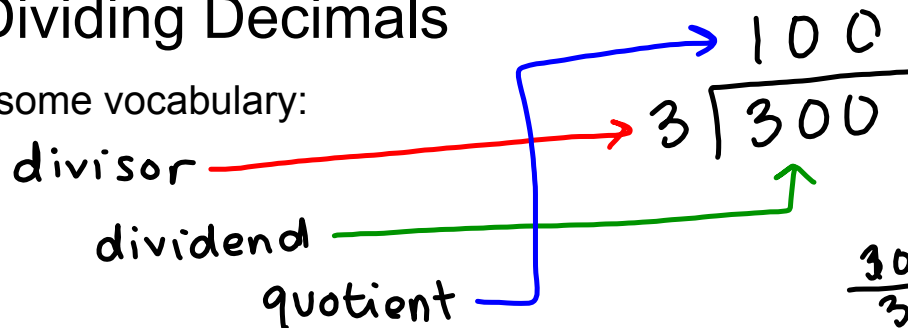
Warm-Up

Marta went to the store and bought deodorant for \$3.69, lip gloss for \$2.09, a candy bar that was \$0.65, hair gel that was \$5.29 and a magazine for \$3.50. If she had to pay sales tax of 0.08, how much did she pay the cashier?

$$\begin{array}{r} 3.69 \\ 2.09 \\ .65 \\ 5.29 \\ 3.50 \\ \hline 15.22 \\ 1.22 \\ \hline \$16.44 \end{array}$$
$$\begin{array}{r} 415.22 \\ .08 \\ \hline 12176 \\ 1.22 \end{array}$$

4.5 Dividing Decimals

Recall some vocabulary:



$$\frac{300}{3} = 100$$

$$300 \div 3 = 100$$

Decimal Dividing by a Whole Number

Step 1 Write the decimal from dividend directly above in quotient

Step 2 Divide as if whole numbers

Ex 1 Dividing Decimals by a Whole Number

a) $21.93 \div 3$

$$\begin{array}{r} \times 7.31 \\ 3 \overline{) 21.93} \end{array}$$

b) $9 \overline{) 470.7}$

$$\begin{array}{r} \times 52.3 \\ 9 \overline{) 470.7} \end{array}$$

How do we check our work?

Multiply quotient by divisor

a) $\begin{array}{r} 7.31 \\ \times 3 \\ \hline 21.93 \end{array}$ ✓

b) $\begin{array}{r} 52.3 \\ \times 9 \\ \hline 470.7 \end{array}$ ✓

Ex 2 Writing Extra Zeros to Complete Division

a) Divide 1.5 by 8

$$\begin{array}{r}
 0.1875 \\
 8 \overline{) 1.5000} \\
 \underline{-8} \\
 70 \\
 \underline{-64} \\
 60
 \end{array}$$

b) 30.87 by 14

$$\begin{array}{r}
 2.205 \\
 14 \overline{) 30.870} \\
 \underline{-28} \\
 28 \\
 \underline{-28} \\
 070 \\
 \underline{-70} \\
 0
 \end{array}$$

Ex 3 Rounding a Decimal Quotient

a) Divide 4.7 by 3

$$\begin{array}{r}
 1.5666\overline{6} \\
 3 \overline{) 4.7000} \\
 \underline{-3} \\
 17 \\
 \underline{-15} \\
 20 \\
 \underline{-18} \\
 20
 \end{array}$$

Repeating round 4 places

Quotient: 1.5667

b) $\frac{10.22}{9}$

$$\begin{array}{r}
 1.1355\overline{5} \\
 9 \overline{) 10.2200} \\
 \underline{-9} \\
 12 \\
 \underline{-9} \\
 32 \\
 \underline{-27} \\
 50 \\
 \underline{-45} \\
 50
 \end{array}$$

quotient 1.1356

Now 4.5 WS #1-4 (lined paper)

$$1) 7 \overline{) 27.3} \\ \underline{-21} \\ 63 \\ \underline{-63} \\ 0$$

$$2) 8 \overline{) 50.4} \\ \underline{-48} \\ 24 \\ \underline{-24} \\ 0$$

$$3) 9 \overline{) 4.23} \\ \underline{-36} \\ 63 \\ \underline{-63} \\ 0$$

$$4) 6 \overline{) 1.62} \\ \underline{-12} \\ 42 \\ \underline{-42} \\ 00$$

Rounded

$$1) 13 \overline{) 267.01}$$

$$2) \frac{10.22}{9}$$

$$3) 16.15 \div 3 \quad 4) 116.3 \div 11$$

Handwritten long division for $13 \overline{) 267.01000}$. The result is 20.5392 , which is circled.

Handwritten long division for $9 \overline{) 10.2200}$. The result is 1.1356 , which is boxed.

Handwritten long division for $3 \overline{) 16.15000}$. The result is 5.38333 .

Handwritten long division for $11 \overline{) 116.300000}$. The result is 10.572727 , which is boxed.

1, 2, 3, 20, 27, 28, 31, 40