

**PRE-ACTIVITY
PREPARATION**

Dividing Decimal Numbers

The cost of your homeowner's insurance for one year is \$856.20. If you opt for equal monthly payments to be automatically withdrawn from your checking account, how much will each payment be?

Last week you drove a company car to and from a client's Chicago office (a round-trip distance of 428.5 miles) on 16.6 gallons of gas. How many miles per gallon did the car average for this trip?

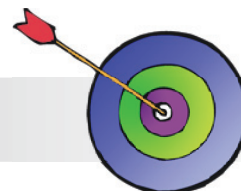
If a case of twenty-four 16.9-ounce bottles of spring water sells for \$6.48, what is the cost per bottle?

You want to place a single row of ceramic tiles, each 3.5 inches long, above the kitchen counter which measures 16.8 feet long. How many tiles should you purchase for this project?

Answering these questions requires division of decimal numbers.



LEARNING OBJECTIVE



Master the division process for decimal numbers.

TERMINOLOGY



PREVIOUSLY USED

dividend
divisor
place
power of ten
quotient
rounding
trailing zeros



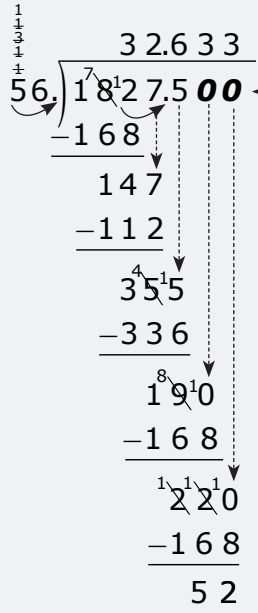
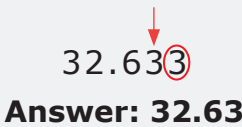
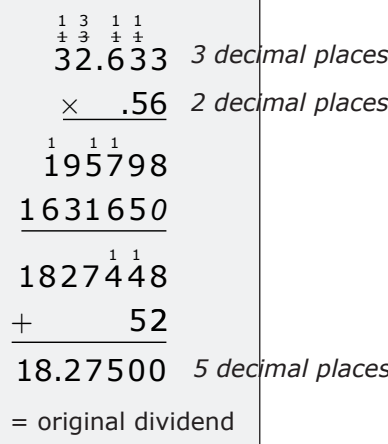
METHODOLOGY

Dividing Decimal Numbers

- ▶ **Example 1:** $18.275 \div 0.56$ Round the answer to the nearest hundredth.
- ▶ **Example 2:** $16.46 \div 4.3$ Round the answer to the nearest tenth.



Steps in the Methodology		Example 1	Example 2
Step 1 Set up the problem.	Set up the division problem, carefully recognizing which number is the dividend and which is the divisor . It is not necessary to include leading zero (0) whole numbers in the set-up.	$.56 \overline{)18.275}$	
Step 2 Move the decimal point in the divisor.	Move the decimal point in the divisor to the right of its last digit. <i>Special Case:</i> The divisor is a whole number (see page 191, Model 2 & see page 192, Model 5)	$.56 \overline{)18.275}$ (Move two places in the divisor.)	
Step 3 Move the decimal point in the dividend.	Move the decimal point in the dividend the same number of places to the right as you did in the divisor. <i>Special Case:</i> Not enough digits in the dividend to re-position its decimal point (see page 190, Model 1) <i>Special Case:</i> The dividend is a whole number (see page 191, Model 3 & see page 192, Model 5)	$.56 \overline{)18.275}$ (Move two places also in the dividend.)	
Step 4 Bring up the decimal point.	Position the decimal point in the quotient directly above the new position of the decimal point in the dividend. ? ? ? ? ? Why do you do Steps 2, 3, and 4?	$.56 \overline{)18.275}$	

Steps in the Methodology		Example 1	Example 2
Step 5 Divide.	Do the computation and placement of the digits in the quotient as you did with whole numbers. Carry out the division one more place beyond the place value specified for rounding. <i>To do this, add as many trailing zeros in the dividend as are necessary to do the required number of divisions.</i> Special Case: Placeholder zeros after decimal point in the quotient (see page 192, Model 4)	 2 trailing zeros needed in the dividend to carry the division out 3 places	
Step 6 Present the answer.	Present your answer by rounding the quotient to the specified place value.	 Answer: 32.63	
Step 7 Validate your answer.	Validate: • Multiply the non-rounded quotient (from Step 5) by the divisor in its original form. • Add the remainder digits of your final subtraction. • Position the decimal point in your answer. • The result must match the original dividend. Why and how do you add the remainder?	 3 decimal places 2 decimal places 5 decimal places = original dividend	

Why do you do Steps 2, 3, and 4?

Once you have set up the division problem, these three important steps correctly position the decimal point in your quotient—even before you do your first computation. Recall that when you multiplied two decimal numbers, the positioning of the decimal point in the answer required separate steps at the end of the process. When dividing decimal numbers, however, you do the decimal placement steps *first*. Once you have correctly positioned the decimal point in the quotient, you can ignore the decimal point in the dividend and solve the problem using the long division methodology for whole numbers.

How do you determine *where* to position the decimal point in the quotient?

You learned in dividing whole numbers that you can multiply the divisor by the quotient (and add the remainder) to get the dividend. You also know from multiplying two decimal numbers that the number of decimal places in their product is determined by adding the number of decimal places in both factors.

Combining these two concepts, the number of decimal places in the divisor plus those in the resulting quotient will equal the number of decimal places in the dividend. Stated another way, **the number of decimal places in the dividend *minus* the number of decimal places in the divisor will equal the number of decimal places in the resulting quotient**. Therefore, the first thing to look at is the number of decimal places in your divisor.

In Example 1 (from the methodology),
there are two decimal places in the divisor.

$$\begin{array}{r} \text{two decimal places} \\ \uparrow \\ .56 \overline{)18.275} \end{array}$$

Why do you do Steps 2 and 3?

Moving the decimal point to the right a specific number of places—first in the divisor, then the same number of places in the dividend—is done to account for the *decimal places in the dividend that come from the given divisor*.

(**Note:** As you will see in Step 5, you will sometimes make use of trailing zeros in the dividend to carry out the long division process; so, for the sake of illustration, imagine the dividend in Example 1 written with trailing zeros, 18.27500000....)

In Example 1, the two decimal places in the divisor
account for two of the decimal places in the dividend:

$$\begin{array}{r} .56 \overline{)18.27500000....} \\ \text{two decimal places accounted for} \end{array}$$

Then what is the meaning behind Step 4?

As you have already accounted for the decimal places in the dividend that came from the divisor, you can now correctly position the decimal point in your answer. Keep in mind that the quotient accounts for the rest of the decimal places in the dividend. That is, the *remaining* number of decimal places (after you have accounted for those in the divisor) must be the same in both the dividend and in the quotient. At this step, you can simply bring the decimal point up into the quotient directly above its new position in the dividend.

Example 1:

$$\begin{array}{r} \text{These will be the decimal} \\ \text{places for the quotient} \\ \uparrow \\ .56 \overline{)18.27500000....} \\ \text{two places} \quad \text{remaining number of decimal places—} \\ \quad \quad \quad \text{same as for the quotient} \end{array}$$

Why and how do you add the remainder digits?

If your quotient is such that you do not have to round it, the product of the quotient and the divisor will equal the dividend. However, probably more often than not, you will round the quotient because the divisor does not divide into the dividend evenly. In these problems, you will have a remainder.

If you want to validate so that the result of your validation is exactly equal to the dividend, you must add on the remainder—the remainder that resulted after you calculated the final digit in your quotient (one decimal place beyond the place value specified for rounding), multiplied, and subtracted.

It is critical to the validation process for you to add the digits in the remainder *as they align with the decimal places of the original dividend*.

Look at Example 1 to see how the remainder digits align with the *original* decimal point.

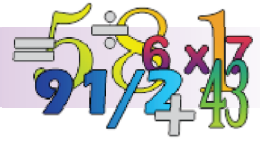
$$\begin{array}{r}
 \overline{) 32.633} \\
 \overline{) 18.27500} \\
 \underline{-168} \\
 147 \\
 \underline{-112} \\
 355 \\
 \underline{-336} \\
 0190 \\
 \underline{-0168} \\
 00220 \\
 \underline{-00168} \\
 00052
 \end{array}$$

When you take into account the original decimal point, these digits represent a remainder of .00052

That is, $32.633 \times .56 + .00052$ will equal 18.275 exactly.

Although you place the decimal point as your final step of validation, as explained in Step 7, keep in mind that you must always add the remainder's digits to the far right columns of the product's digits before you place the decimal point. If your quotient and remainder digits are correct, your resulting number will exactly match the original dividend.

MODELS



Model 1

Special Case: Not Enough Digits in the Dividend to Reposition its Decimal Point

➔ Divide 2.33 by 0.036 and round the answer to the nearest tenth.

Step 1 Set up the division problem. $.036 \overline{)2.33}$

Step 2 $.036 \overline{)2.33}$

Step 3 One trailing zero is needed to move the decimal point in the dividend.

$$.036 \overline{)2.330}$$

If there are not enough digits in the dividend, use as many trailing zeros in the dividend as are necessary to reposition its decimal point.

Step 4 $.036 \overline{)2.330}$

Step 5 $.036 \overline{)2.33000}$ — Two trailing zeros are needed in the new dividend.

$$\begin{array}{r}
 \begin{array}{l} 1 \\ 4 \\ 2 \\ 3 \end{array} \\
 64.72 \\
 .036 \overline{)2.33000} \\
 \underline{-216} \\
 170 \\
 \underline{-144} \\
 260 \\
 \underline{-252} \\
 80 \\
 \underline{-72} \\
 8
 \end{array}$$

To round to tenths, compute the quotient to its hundredths place.

Step 6 Round to the tenths place. 64.72 → **Answer: 64.7**

Step 7 **Validate:** $\begin{array}{l} 1 \quad 2 \\ 2 \quad 4 \quad 1 \\ 64.72 \end{array}$ ← quotient to 2 decimal places (in Step 5)

$\times .036$ ← original divisor, 3 decimal places

$$\begin{array}{r} 1 \\ 38832 \end{array}$$

$$+ \begin{array}{r} 1 \\ 194160 \end{array}$$

$$\begin{array}{r} 1 \quad 1 \quad 1 \\ 232992 \end{array}$$

+ 8 ← Add the remainder digits of the final subtraction.

2.33000 ← Properly position the decimal point (5 places).

$$= 2.33 \checkmark$$

Model 2**Special Case:** Divisor is a Whole Number

→ Solve $87.28 \div 31$ and round to the nearest hundredth.

Step 1 Set up the division problem. $31 \overline{)87.28}$

Steps 2, 3 & 4 $31 \overline{)87.28}$

When the divisor is a whole number, the decimal point is already understood to be after its right-most digit, so it does not move. Therefore, the decimal point in the dividend does not move.

Step 5

$$\begin{array}{r}
 2.815 \\
 31 \overline{)87.280} \\
 \underline{-62} \\
 252 \\
 \underline{-248} \\
 48 \\
 \underline{-31} \\
 170 \\
 \underline{-155} \\
 15
 \end{array}$$

Step 6 $2.81\textcircled{5}$

Answer: 2.82

Step 7 **Validate:**

$$\begin{array}{r}
 2.815 \quad 3 \text{ decimal places} \\
 \times 31 \quad 0 \text{ decimal places} \\
 \hline
 2815 \\
 +84450 \\
 \hline
 87265 \\
 +15 \\
 \hline
 87280 \quad 3 \text{ decimal places} \\
 = 87.28 \checkmark
 \end{array}$$

Model 3**Special Case:** Dividend is a Whole Number

→ Divide 4.7 into 62 and round to the nearest hundredth.

Step 1 $4.7 \overline{)62}$

Steps 2, 3 & 4 $4.7 \overline{)62.0}$

When the dividend is a whole number, place a decimal point to the right of its ones digit and use trailing zero(s) to move the decimal point the required number of decimal places.

Step 5

$$\begin{array}{r}
 13.191 \\
 4.7 \overline{)62.0000} \\
 \underline{-47} \\
 150 \\
 \underline{-141} \\
 90 \\
 \underline{-86} \\
 40 \\
 \underline{-38} \\
 20 \\
 \underline{-19} \\
 10 \\
 \underline{-9} \\
 1
 \end{array}$$

Step 6 $13.19\textcircled{1}$

Answer: 13.19

Step 7 **Validate:**

$$\begin{array}{r}
 13.191 \\
 \times 4.7 \\
 \hline
 92337 \\
 527640 \\
 \hline
 619977 \\
 +23 \\
 \hline
 62.0000 = 62 \checkmark
 \end{array}$$

Model 4**Special Case:** Placeholder Zeros After the Decimal Point in the Quotient

➔ Divide: $0.38 \div 52.1$ Round to the nearest thousandth.

Steps 1, 2, 3 & 4 $52.1 \overline{) 38}$

Step 5
$$\begin{array}{r} .0072 \\ 52.1 \overline{) 38000} \\ \underline{-3647} \\ 15310 \\ \underline{-1042} \\ 488 \end{array}$$

If the first partial product that the divisor will divide into extends beyond the tenths place of the quotient, you must use zeros as placeholders after the decimal point in the quotient.

THINK

521 does not divide into 38.
Hold the (tenths) place with a zero.

521 does not divide into 380.
Hold the (hundredths) place with a zero.

521 does divide into 3800—7 times.

Step 7
$$\begin{array}{r} .0072 \\ \times 52.1 \\ \hline \end{array}$$

Validate: $\times 52.1$

$$\begin{array}{r} 0072 \\ 01440 \\ 036000 \\ \hline \end{array}$$

$$\begin{array}{r} 037512 \\ + 488 \\ \hline \end{array}$$

$0.38000 = 0.38 \checkmark$

Step 6 $.007\textcircled{2}$
Answer: 0.007

Model 5

➔ Solve: $8 \div 135$ Round to the nearest thousandth.

Step 1 $135 \overline{) 8}$ **Note:** Even though $8 < 135$, in $8 \div 135$, 8 is the dividend and 135 is the divisor.

THINK

Steps 2, 3, & 4 $135 \overline{) 8.}$ The decimal point is understood to be to the right of the whole number divisor 135, so it does not move. Therefore, the decimal point in the dividend 8 does not move and remains to the right of 8.

135 does not divide into 80. Hold the (tenths) place in the quotient with a zero.
 135 divides into 800 5 times.

Step 5
$$\begin{array}{r} .0592 \\ 135 \overline{) 8.0000} \\ \underline{-675} \\ 1250 \\ \underline{-1215} \\ 350 \\ \underline{-270} \\ 80 \end{array}$$

Step 6 $.059\textcircled{2}$
Answer: 0.059

Step 7

Validate:

$$\begin{array}{r}
 \overset{1}{2} \overset{2}{4} \overset{1}{1} \\
 0.0592 \\
 \times \quad 135 \\
 \hline
 2960 \\
 17760 \\
 059200 \\
 \hline
 79920 \\
 + \quad 80 \\
 \hline
 8.0000 = 8 \checkmark
 \end{array}$$



TECHNIQUE

The technique that follows is a shortcut for dividing decimal numbers by the **powers of ten** (10, 100, 1000, and so on). It is the reverse of the technique used for multiplying decimal numbers by the powers of ten.

Dividing a Decimal Number by a Power of Ten

Technique

Move the decimal point to the left as many places as there are zeros in the power of ten.

MODELS



Model 1

A $7.3 \div 10 = .73$
 Move the decimal point **one place** to the left.

B $07.3 \div 100 = .073$
 requires a zero placeholder

C $007.3 \div 1000 = .0073$
 requires two zero placeholders

Model 2

A $480 \div 10 = 480. \div 10 = 48.0$ or **48**

B $480 \div 100 = 4.80$ or **4.8**

C $480 \div 1000 = .480$ or **.48**

D $480 \div 10,000 =$
 $.0480 \div 10,000 = .0480$ or **.048**
 requires a zero placeholder

How Estimation Can Help

You may wish to do a quick estimate after solving a division problem to determine if your answer is reasonable. An effective way to estimate the answer is to round each number to its largest non-zero place value and then divide. It may or may not be as easy to do a *mental* calculation when decimal places come into play, but you will have simplified the numbers for ease of calculation.

Keep in mind that you also must accurately position a decimal point in your estimate. In fact, for division with decimal numbers, perhaps the most important benefit of estimation is to assure that the placement of the decimal point in your final answer is correct.

Example: $19.275 \div 0.68$

Round: $20 \div .7$

Estimate: $28.5\dots$

$$\begin{array}{r} 28.5 \\ .7 \overline{)20.00} \\ \underline{-14} \\ 60 \\ \underline{-56} \\ 40 \\ \underline{-35} \\ 5 \end{array}$$

Actual answer: $28.3455\dots$

Your answer is reasonable. The decimal point is positioned correctly and the digits are reasonable.

Example: $0.083 \div 32.4$

Round: $.08 \div 30$

Estimate: $.002\dots$

$$\begin{array}{r} .002 \\ 30 \overline{)0.080} \\ \underline{-60} \\ 20 \end{array}$$

Actual answer: $.00256\dots$

It is reasonably close to the estimate.

Example: $29.165 \div 0.08$

Estimate: $30 \div .08 = 375.$

$$\begin{array}{r} 375. \\ .08 \overline{)30.00} \\ \underline{-24} \\ 60 \\ \underline{-56} \\ 40 \\ \underline{-40} \\ 0 \end{array}$$

Actual answer: 364.5625

Example: $17 \div 103$

Estimate: $20 \div 100 = .2$

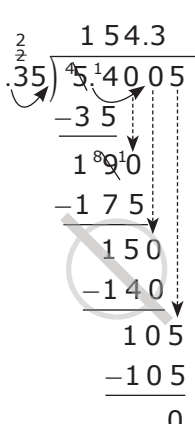
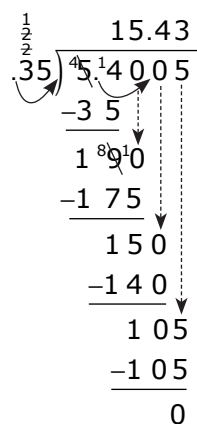
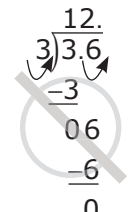
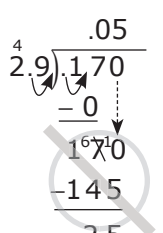
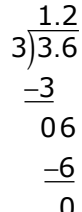
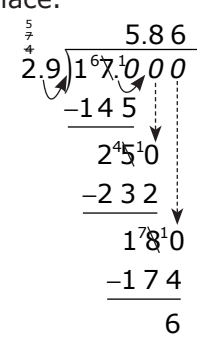
$$\begin{array}{r} .2 \\ 100 \overline{)20.0} \\ \underline{-20} \\ 0 \end{array}$$

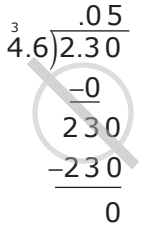
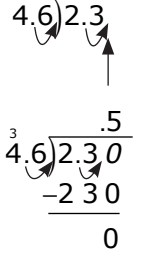
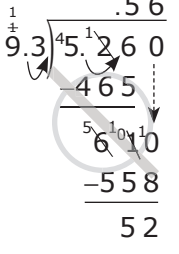
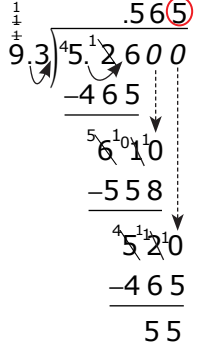
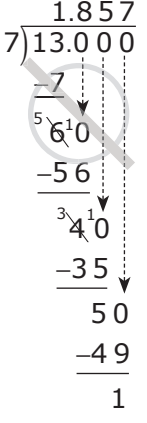
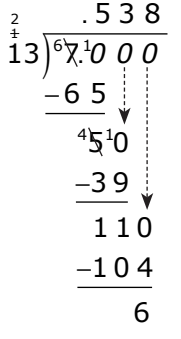
Actual answer: $0.16504\dots$

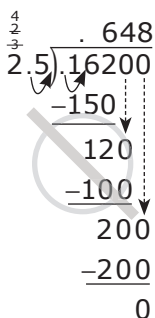
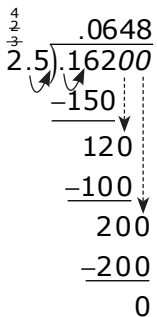
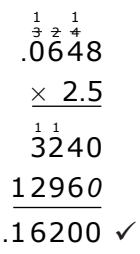
Now go back and estimate the answer to Example 2 in the Methodology. Is your answer reasonable?

ADDRESSING COMMON ERRORS



Issue	Incorrect Process	Resolution	Correct Process	Validation
Misaligning the digits in the quotient	$5.4005 \div 0.35$  Answer: 154.3	As with whole number division, align each digit in the answer with the right-most digit of its corresponding partial dividend.	$5.4005 \div 0.35$ 35 will not divide into 5, but it will divide into 54. The first digit in the quotient must be aligned with the 4 in 54.  Answer: 15.43	$\begin{array}{r} 15.43 \\ \times .35 \\ \hline 7715 \\ 46290 \\ \hline 5.4005 \end{array}$ 5.4005 ✓
Incorrectly positioning the decimal point in a whole number	a) $3.6 \div 3 =$  Answer: 12. b) $17 \div 2.9$ Round answer to tenths place.  Answer: 0.1	The decimal point is understood to be to the right of the ones digit in a whole number.	a) $3.6 \div 3 =$  Answer: 1.2 b) $17 \div 2.9$ Round answer to tenths place.  Answer: 5.9	$\begin{array}{r} 1.2 \\ \times 3 \\ \hline 3.6 \end{array}$ 3.6 ✓ $\begin{array}{r} 5.86 \\ \times 2.9 \\ \hline 5274 \\ 11720 \\ \hline 16994 \\ + 6 \\ \hline 17.000 \end{array}$ 17.000 ✓

Issue	Incorrect Process	Resolution	Correct Process	Validation
Incorrectly positioning the decimal point in the quotient	$2.3 \div 4.6$  Answer: 0.05	Follow Steps 2 and 3 of the Methodology. First, move the decimal point in the divisor to the right of the last digit. Move the decimal point the same number of places in the dividend before beginning the long division process.	$2.3 \div 4.6$  Answer: 0.5	$\begin{array}{r} 3 \\ 4.6 \\ \times .5 \\ \hline 2.30 \end{array} \checkmark$
Not carrying out division to the correct number of places for rounding	$5.26 \div 9.3 =$ Round answer to the nearest hundredth.  Answer: 0.56	Carry the division one more place beyond the specified place value and then round. Use trailing zeros in the dividend as necessary.	$5.26 \div 9.3 =$ Round answer to the nearest hundredth.  Answer: 0.57	$\begin{array}{r} 54 \\ .565 \\ \times 9.3 \\ \hline 1695 \\ 50850 \\ 52545 \\ + 55 \\ \hline 5.2600 \end{array} \checkmark$
Expecting to always divide the larger number by the smaller number and setting up the problem incorrectly	$7 \div 13 =$ Round answer to the hundredths place.  Answer: 1.86	Based upon the notation used, carefully determine which number is the dividend and which is the divisor.	$7 \div 13 =$ Round answer to the hundredths place. 7 is the dividend.  Answer: 0.54	$\begin{array}{r} 12 \\ .538 \\ \times 13 \\ \hline 1614 \\ 5380 \\ 6994 \\ + 6 \\ \hline 7.000 \end{array} \checkmark$

Issue	Incorrect Process	Resolution	Correct Process	Validation
Missing necessary zero placeholders in the quotient	$0.162 \div 2.5 =$  Answer: 0.648	When dividing decimal numbers, leading zero placeholders are important, especially after the decimal point.	$0.162 \div 2.5 =$  Answer: 0.0648	

PREPARATION INVENTORY

Before proceeding, you should have an understanding of each of the following:

- ☐ the terminology and notation associated with dividing decimal numbers
- ☐ the positioning of the decimal point in the quotient
- ☐ when and how to use trailing zeros
- ☐ when to place zeros in the quotient
- ☐ how to carry out the rounding instructions
- ☐ the validation of the answer by multiplication

Dividing Decimal Numbers

PERFORMANCE CRITERIA



- Dividing any two decimal numbers
 - neatness of presentation
 - rounding to the specified place
 - validation of the answer

CRITICAL THINKING QUESTIONS



1. Other than those mentioned in the introduction, what are three situations in which you would need to divide decimal numbers?
 -
 -
 -
2. How do you write a whole number in decimal form?
3. What is the shortcut for dividing a number by 10, 100, 1000, and so on?

7. How do you know when to stop the long division process in a decimal number division problem?

8. How do you validate division of decimal numbers when you have to round your answer?

TIPS FOR SUCCESS



- Be neat. Keep digits vertically aligned.
- Be sure to carefully track the position of the decimal points—in the divisor, in the dividend, and in the quotient.
- Before presenting the final answer, make sure you have rounded to the specified place.
- When multiplying to validate, carefully track the placement of the decimal points in the factors. Do not just verify that your digits are a correct match.



DEMONSTRATE YOUR UNDERSTANDING

Perform each division and validate your answers.

Problem	Worked Solution	Validation
1) $0.072 \div 2.4$		
2) $2.597 \div 3.3$ Round your answer to the nearest hundredth.		
3) Divide 27.226 by 90. Round your answer to the nearest thousandth.		

Problem	Worked Solution	Validation
4) 2.1 divides into 526 how many times? Round your answer to the nearest hundredth.		
5) $0.083 \div 32.4$ Round your answer to the nearest thousandth.		
6) $17 \div 103$ Round your answer to the nearest thousandth.		

Problem	Worked Solution	Validation
7) $18.4 \div 0.123$ Round your answer to the nearest tenth.		

8) Fill in the following chart with the correct quotients.

Decimal number	$\div 10$	$\div 100$	$\div 1000$
3.72			
0.005			
416.803			

IDENTIFY AND CORRECT THE ERRORS



In the second column, identify the error(s) you find in each of the following worked solutions. If the answer appears to be correct, validate it in the second column and label it “*Correct.*” If the worked solution is incorrect, solve the problem correctly in the third column and validate your answer in the last column.

Worked Solution What is Wrong Here?	Identify Errors or Validate	Correct Process	Validation
1) $14.703 \div 14.1$ Round the answer to the thousandths place. $ \begin{array}{r} 1.042 \\ 14.1 \overline{) 14.7030} \\ \underline{-141} \\ 603 \\ \underline{-564} \\ 390 \\ \underline{-282} \\ 108 \end{array} $ Answer: 1.042	You have to carry out the division to the ten-thousandths place in the quotient to round it to its thousandths place. (Is the ten-thousandths digit 5, <5, or >5?)	$ \begin{array}{r} 1.0427 \\ 14.1 \overline{) 14.70300} \\ \underline{-141} \\ 603 \\ \underline{-564} \\ 390 \\ \underline{-282} \\ 1080 \\ \underline{-987} \\ 93 \\ \downarrow \\ 1.042\textcircled{7} \end{array} $ Answer: 1.043	$ \begin{array}{r} 1.0427 \\ \times 14.1 \\ \hline 10427 \\ 417080 \\ 1042700 \\ \hline 1470207 \\ + 93 \\ \hline 14.70300 \\ \hline 14.703 \checkmark \end{array} $
2) $0.154 \div 3.2$ Round the answer to the hundredths place. $ \begin{array}{r} .481 \\ 3.2 \overline{) .15400} \\ \underline{-128} \\ 260 \\ \underline{-256} \\ 40 \\ \underline{-32} \\ 8 \\ \downarrow \\ .48\textcircled{1} \end{array} $ Ans. 0.48			

Worked Solution What is Wrong Here?	Identify Errors or Validate	Correct Process	Validation
3) $17 \div 0.23$ Round the answer to the hundredths place. Answer .74			
4) $13 \div 78.1$ Round the answer to the hundredths place. Answer: 6.01			

Worked Solution What is Wrong Here?	Identify Errors or Validate	Correct Process	Validation
5) $36.95 \div 0.525$ Round the answer to the hundredths place. $ \begin{array}{r} 7.038 \\ .525 \overline{) 36.95000} \\ \underline{-3675} \\ 2000 \\ \underline{-1575} \\ 4250 \\ \underline{-4200} \\ 50 \end{array} $ Answer: 7.04			

ADDITIONAL EXERCISES

Perform each division, rounding to the decimal place value specified. Validate each answer.

- $0.00252 \div 0.63$
- $654.2 \div 40.4$ Round to the nearest tenths place.
- $76.58 \div 2.51$ Round to the nearest hundredths place.
- $19 \div 0.26$ Round to the nearest hundredths place.
- $24.73 \div 0.21$ Round to the nearest hundredths place.
- $12 \div 43$ Round to the nearest thousandths place.
- $9.685 \div 30$ Round to the nearest thousandths place.
- Fill in the following chart with the correct quotients.

Decimal number	$\div 10$	$\div 100$	$\div 1000$	$\div 10,000$
63.7				
0.518				
94.02				