

Participant Resource Guide

Shop Math

September 2026



Course Outline

- Module 1: Basic Operations
- Module 2: Fractions
- **Module 3: Decimals**
- Module 4: Measurements



U.S. Department of Transportation
Federal Transit Administration

A program of the Federal Transit Administration administered by the International Transportation Learning Center

Course: Shop Math

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Transit Workforce Center

8403 Colesville Road, Suite 825

Silver Spring, MD 20910

Tel: 855-888-NTWC (6892)

Contact us via email at twc@transportcenter.org

Shop Math – Decimals

Objectives

- Demonstrate the ability to solve mathematics problems involving decimals.
- Convert between decimals and fractions to represent values in different forms.
- Solve addition and subtraction problems involving decimals.
- Solve multiplication and division problems involving decimals.
- Apply order of operations to solve multi-step problems involving decimals.

Key Terms

- Decimal
- Decimal Point
- Place Value

Decimals



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Decimals
Shop Math

Transit Core Competencies Curriculum (TC3)



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Agenda

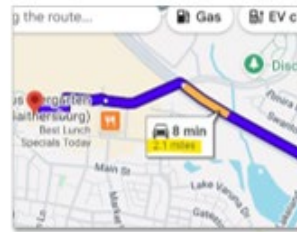
- Welcome and Intro
- 3.1 - Fundamentals of Decimals
- 3.2 – Adding and Subtracting Decimals
- 3.3 – Multiplying and Dividing Decimals
- 3.4 - Combine Operations with Decimal
- Quiz and Wrap Up



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Warm Up

Where do you see **decimals** in everyday life?



Notes:

- Today you'll be exploring decimals and how you will work with decimals on the job. But decimals are all around us, not just in math problems
- Where do you see decimals in everyday life?
- You may see decimals in the form of prices, like at the gas station or grocery store.
- They are also used when expressing different kinds of measurements, like temperature or distance.
- Many tools you will see in the shop also express measurements in decimals, such as the multimeter here showing a voltage reading.

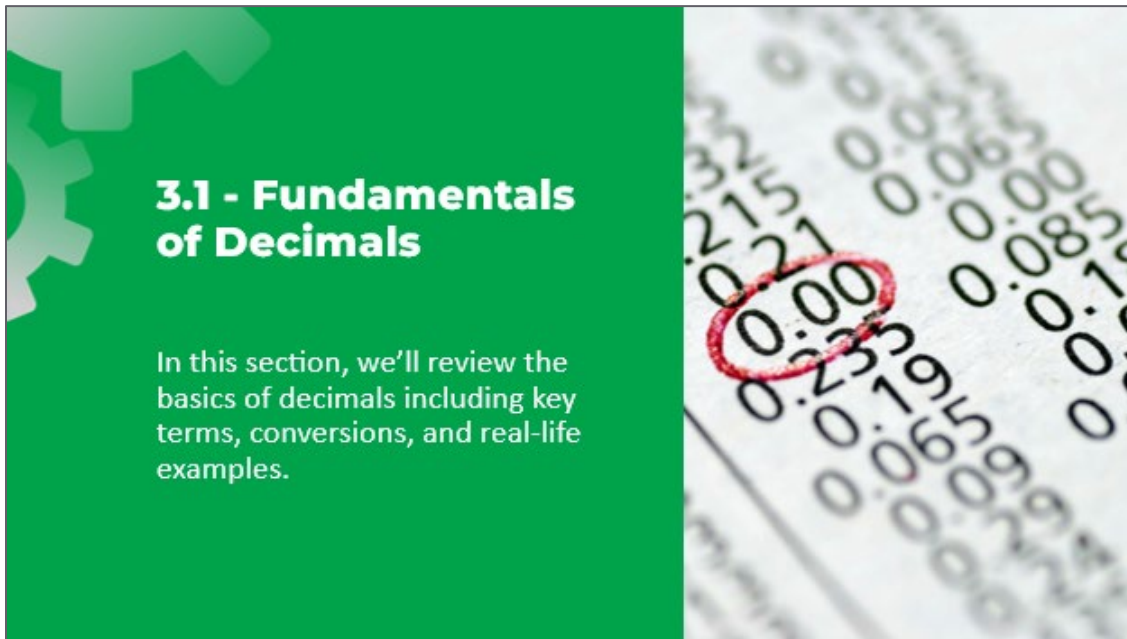
The Importance of Decimals in the Shop

- ✓ Accuracy
- ✓ Precision
- ✓ Decision Making



Notes:

- Decimals help us work with accuracy and precision on the job, as we can be as exact as possible.
 - Even small decimal differences can lead to big issues, especially in measurements or electrical readings.
 - For example, a reading of 1.596 on a meter gives much more precise information than just rounding to 1.6.
 - Decimals also support better decision-making. Technicians rely on precise values to determine if equipment is operating correctly or needs adjustment.
 - As you work, decimals help you measure correctly, troubleshoot problems, and make informed decisions
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-
-
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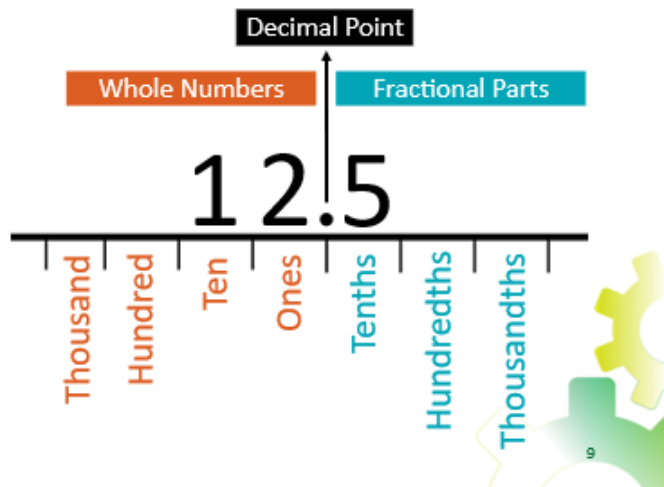
Notes:

- In this section, you'll review the basics of decimal fractions, including key terms, conversions, and real-life examples.

What is a Decimal?

A **decimal** is a number written with a decimal point where each digit has a place value.

These **place values** represent parts of a whole.



Notes:

- A **decimal** is a number written with a decimal point where each digit has a place value.
 - These **place values** represent parts of a whole.
- The **decimal point** separates whole numbers from fractional parts.
 - Everything to the left of the decimal is a **whole number**.
- In the number 12.5, 12 is a whole number. The one is in the “Tenths” place value, while the 2 is the in “Ones” place value.
- Everything to the right represents **smaller parts of a whole**. Each position after the decimal gets smaller as you move to the right.
 - For example, in 12.5, 5 represents *part* of a whole.
- This is how we show values that are not whole numbers, like measurements or readings.



Place Value Chart

Whole Numbers						.	Decimals (Fractional Parts)				
100,000	10,000	1,000	100	10	1		0.1 or $\frac{1}{10}$	0.01 or $\frac{1}{100}$	0.001 or $\frac{1}{1,000}$	0.0001 or $\frac{1}{10,000}$	0.00001 or $\frac{1}{100,000}$
Hundred Thousands	Ten Thousands	Thousands	Hundreds	Tens	Ones		Tenths	Hundredths	Thousandths	Ten Thousandths	Hundred Thousandths

Converting Fractions and Decimals

Converting Decimals to Fractions

- Write the decimal as a fraction by using the place value:
 - 10 (if 1 decimal place)
 - 100 (if 2 decimal places)
 - 1000 (if 3 decimal places), etc.
- Simplify

$$0.2 = \frac{2}{10} = \frac{1}{5}$$

$$0.75 = \frac{75}{100} = \frac{3}{4}$$

$$0.5 = \frac{5}{10} = \frac{1}{2}$$

Converting Fractions to Decimals

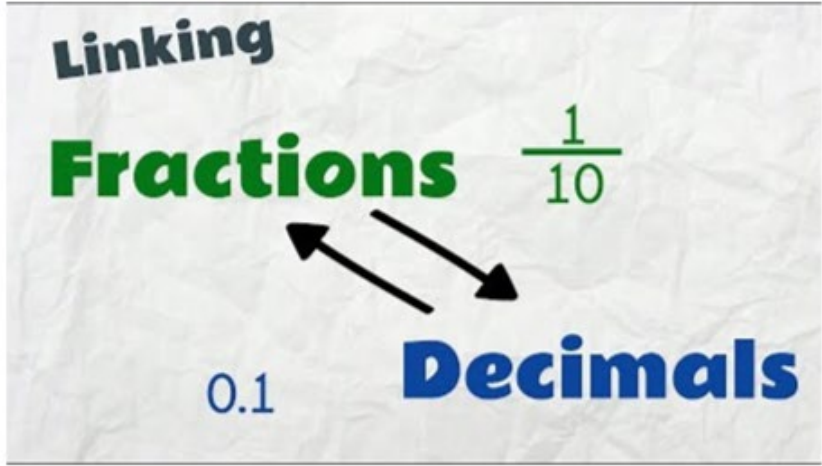
- Turn the fraction into a division problem.
- Solve

$$\frac{1}{5} = 1 \div 5 = 0.2$$

$$\frac{3}{4} = 3 \div 4 = 0.75$$

$$\frac{1}{2} = 1 \div 2 = 0.5$$

Linking Fractions and Decimals 



Linking

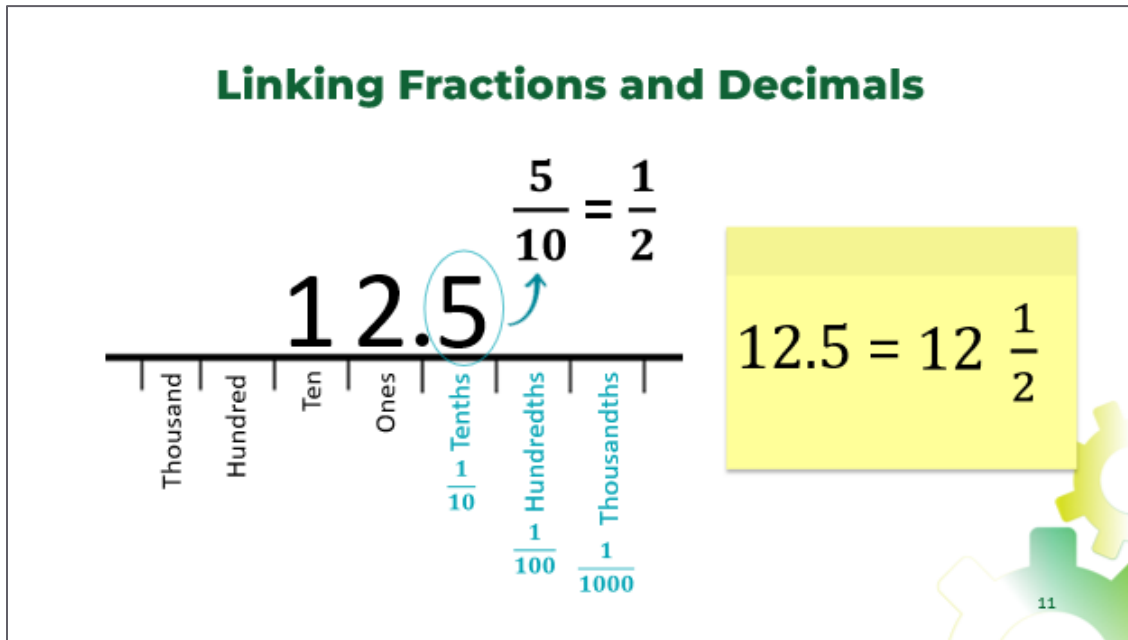
Fractions $\frac{1}{10}$

Decimals 0.1

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Notes:

- Let's take a closer look at the relationship between fractions and decimals to better understand the meaning of place values.

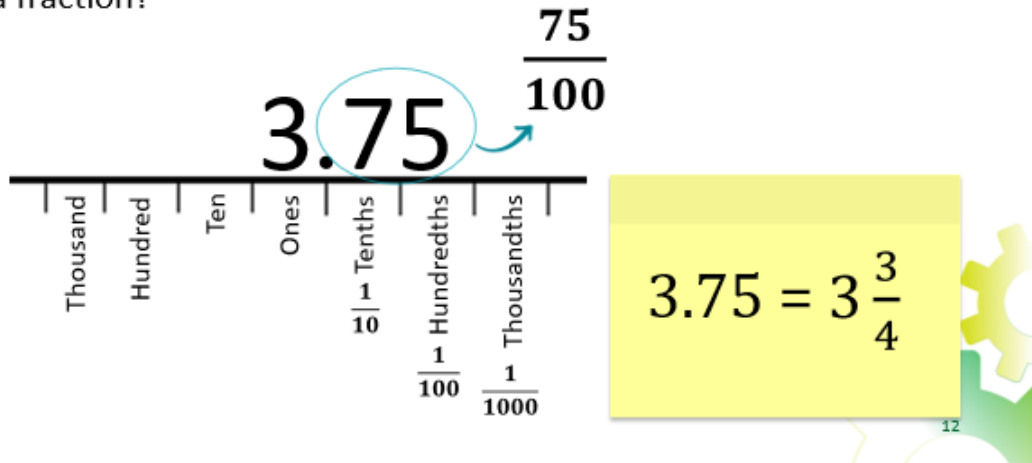


Notes:

- Let's return to our 12.5 example where the 5 sits in the tenths place value.
- As you learned in the video, the tenths place value means $\frac{1}{10}$.
- So, the 5 is actually equal to $\frac{5}{10}$ which can be simplified to $\frac{1}{2}$.
- The decimal 12.5 is the same as saying $12 \frac{1}{2}$.

Example 1

A technician cuts 3.75 feet of cable. What does this look like as a fraction?

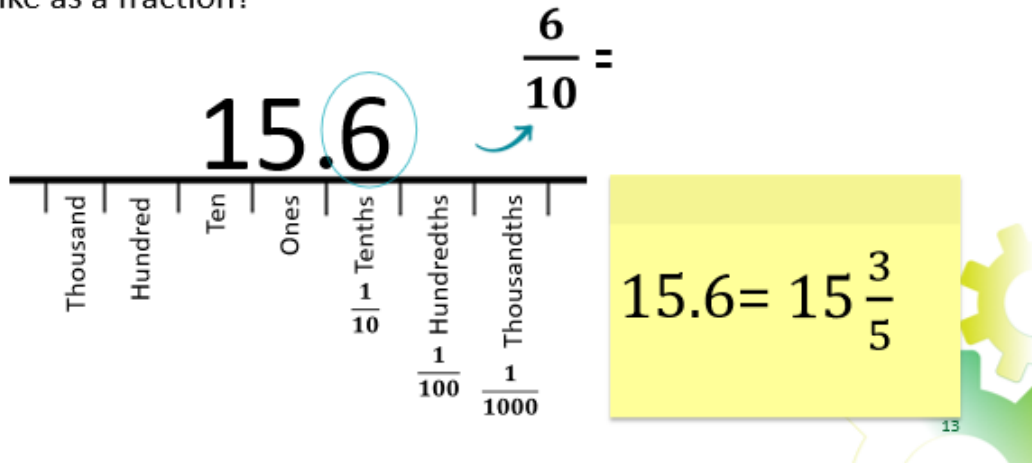


Notes:

- Let's put things into context with some real-world examples. **A technician cuts 3.75 feet of cable.**
- What does that look like as a fraction?
 - 75 goes all the way to the hundredths place, so $75 = \frac{75}{100}$.
- How can this fraction be simplified?
- Your turn - what does 3.75 look like as a fraction?

Example 2

A technician reads 15.6 volts on a meter. What does this look like as a fraction?



Notes:

- How about this one: **A technician reads 15.6 volts on a meter.**
- What does this look like as a fraction?
 - The 6 is in the tenths place, so $6 = \frac{6}{10}$.
- How can this fraction be simplified?
- Your turn - what does 15.6 look like as a fraction?

Converting Decimals & Fractions

Converting Decimals to Fractions

1. Write the decimal as a fraction by using the place value:
 - 10 (if 1 decimal place)
 - 100 (if 2 decimal places)
 - 1000 (if 3 decimal places), etc.
2. Simplify

$$0.2 = \frac{2}{10} = \frac{1}{5}$$

Converting Fractions to Decimals

1. Turn the fraction into a division problem.
2. Solve

$$\frac{1}{5} = 1 \div 5 = 0.2$$

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Notes:

- Let's briefly summarize how to convert decimals into fractions and fractions into decimals.
 - To convert decimals into fractions, start by writing the decimal as a fraction by using the place value.
 - To do this, you will place the number over 10, 100, 1000, or whatever the place value of the decimal is.
 - In this case, 0.2 goes to the tenths place value, so we'll write 2/10.
 - Next, you simplify to get 1/5. That's it!
 - To convert fractions into decimals, start by writing the fraction as a division problem.
 - In this case, $\frac{1}{5}$ will become $1 \div 5$.
 - Next, you solve the equation. $1 \div 5 = 0.2$.
-
-
-
-
-

QUICK PRACTICE - Conversions

Convert the following fractions to decimals or decimals to fractions.

1. $\frac{1}{2} =$

4. $0.6 =$

2. $\frac{2}{5} =$

5. $0.25 =$

3. $\frac{1}{8} =$

6. $0.8 =$



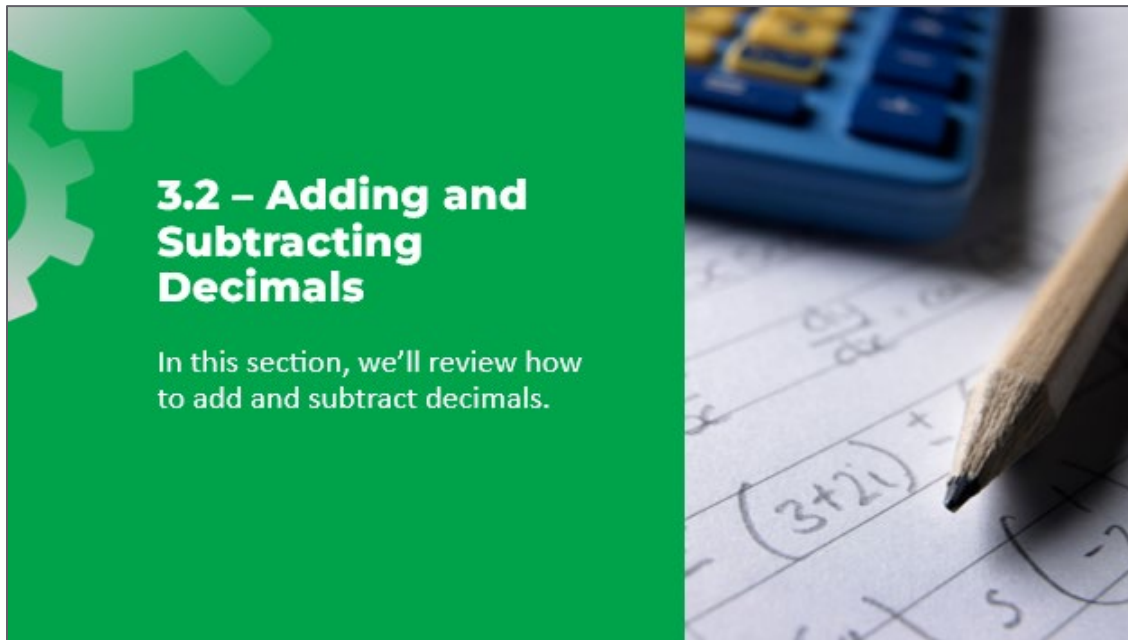
Summary and What's Next

- A **decimal** is a number written with a decimal point where each digit has a place value. These place values represent parts of a whole.
- **Fractions** and **decimals** are two different ways to show parts of a whole. They can represent the same value

Next, we'll learn how to add and subtract decimals to get accurate results on the job.

Example

- $0.5 = \frac{1}{2}$
- $0.1 = \frac{1}{10}$



Notes:

- In this section, you'll review how to add and subtract decimals.

Adding & Subtracting Decimal Fractions

1. Write the problem vertically and line up the decimal points.
2. Add additional zeros if necessary so the numbers have the same number of decimal places.
3. Add or subtract from right to left as if the numbers are whole numbers. Bring the decimal point straight down.

$$18.70 - 10.3 = ?$$

$$\begin{array}{r} 18.70 \\ - 10.30 \\ \hline 8.4 \end{array}$$

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Notes:

- Adding and subtracting can be done in three simple steps.
- First, write the problem vertically and line up the decimal points.
- Next, add additional zeros (if necessary) so the numbers have the same number of decimal places.
- Lastly, add or subtract from right to left as if the numbers are whole numbers. Bring the decimal point straight down.

Group Practice 1

1. Write the problem vertically and line up the decimal points.
2. Add additional zeros if necessary so the numbers have the same number of decimal places.
3. Add or subtract from right to left as if the numbers are whole numbers. Bring the decimal point straight down.

$$24.2 + 8.5 = ?$$

$$\begin{array}{r} 24.2 \\ + 8.5 \\ \hline 32.7 \end{array}$$



Notes:

- First, write the problem vertically and line up the decimal points.
- Next, add additional zeros (if necessary) so the numbers have the same number of decimal places.
 - Do you need to add additional zeros here?
- Lastly, add or subtract as if the numbers are whole numbers. Bring the decimal point straight down.
 - What is 5 + 2?
 - What is 4 + 8?
 - What is 2 + 1?
- After bringing our decimal point straight down, you will have our final answer: 32.7.

Group Practice 2

1. Write the problem vertically and line up the decimal points.
2. Add additional zeros if necessary so the numbers have the same number of decimal places.
3. Add or subtract from right to left as if the numbers are whole numbers. Bring the decimal point straight down.

$$14.2 - 7.934$$

$$\begin{array}{r}
 \overset{13}{\cancel{1}}\overset{11}{4}.\overset{9}{\cancel{2}}\overset{10}{0}\overset{10}{0} \\
 - 7.934 \\
 \hline
 6.266
 \end{array}$$

Notes:

- First, write the problem vertically and line up the decimal points.
- Next, add additional zeros (if necessary) so the numbers have the same number of decimal places.
 - Where do we need to add zeros?
- Lastly, you will subtract the numbers as if they are whole numbers. Things are tricky here because we can't subtract 4 from 0, so we need to borrow from the 2.
 - That will turn the 2 into a 1, the first 0 into a 9, and the second 0 into a 10.
- If you subtract straight down in the thousandths and hundredths place value columns, what is our answer?
- When you get to the tenths column, you run into the same problem again. You can't subtract 9 from 1, so you need to borrow from the 4.
- This will turn the 4 into a 3 and give you 11 – 9 in the tenths column.
- What is 11- 9?
 - Once again, you can't subtract 7 from 3 so you need to borrow a number. Take 1 from the tenths column, which will give you 13 in the ones column.
- What is 13 – 7?
- You'll bring our decimal point straight down to get a final answer of 6.266.

Group Practice 3 and 4

$$26.7 - 4.92$$



$$120.7 + 49.1$$



Knowledge Check



Solve the equation: $4.75 - 2.25 =$

(A). 2.5

(B). 7

(C). 1.5

(D). 2.25

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Knowledge Check



Convert the solution to a fraction: **2.5**

(A). $\frac{2}{5}$

(B). $\frac{1}{7}$

(C). $\frac{7}{2}$ or $3\frac{1}{2}$

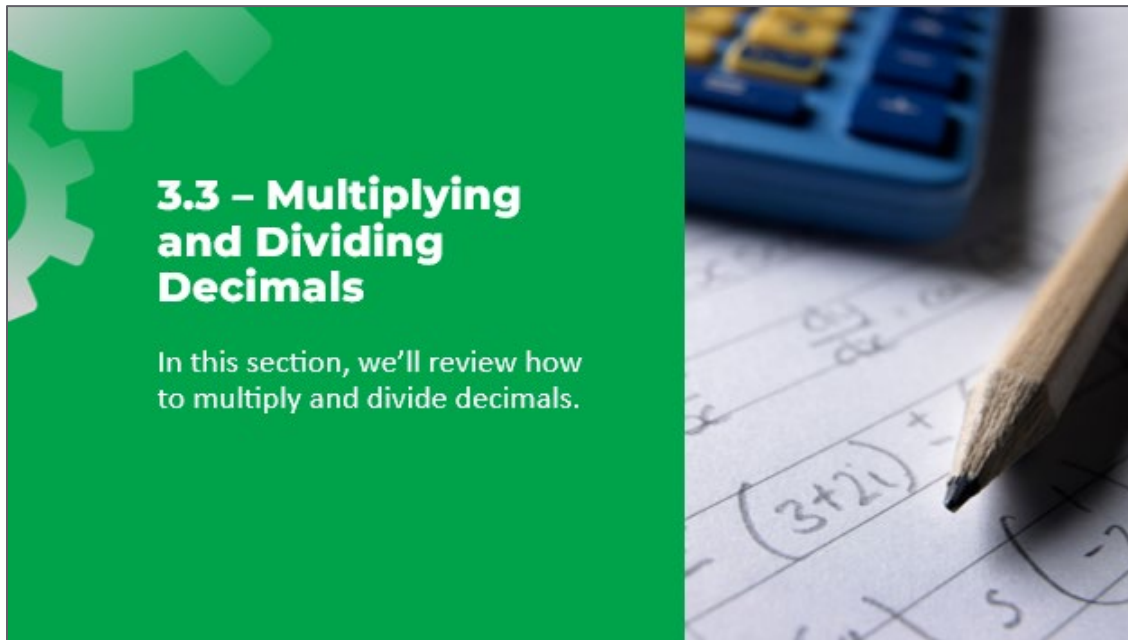
(D). $\frac{5}{2}$ or $2\frac{1}{2}$

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Summary and What's Next

- When adding and subtracting, line up the decimal points.
- Always add and subtract from right to left.
- Accuracy matters — small mistakes can lead to incorrect results.

Next, we'll learn how to multiply and divide decimals to solve more complex problems on the job



Notes:

- In this section, you'll review how to multiply and divide decimals.

Multiplying Decimals

1. Ignore the decimal points and multiply the numbers like whole numbers.
2. Count the total number of digits after the decimal point in both numbers.
3. Put the decimal point in the answer so it has the same total number of decimal places.

$$\begin{array}{r} 2.5 \times 1.2 \\ \text{+1} \quad \text{+1} \end{array}$$

$$\begin{array}{r} 25 \\ \times 12 \\ \hline 3.00 \end{array} \quad \text{+2}$$

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Notes:

- Multiplication can also be done in three simple steps.
- First, ignore the decimal points and multiply the numbers like whole numbers.
- You can use a calculator to do some quick multiplication -> $25 \times 12 = 300$
- Next, count the total number of digits after the decimal point in both numbers.
- Lastly, put the decimal point in the answer so it has the same total number of decimal places.

Group Practice 1

1. Ignore the decimal points and multiply the numbers like whole numbers.
2. Count the total number of digits after the decimal point in both numbers.
3. Put the decimal point in the answer so it has the same total number of decimal places.

$$18.7 \times 3.24$$

+1 +2

$$\begin{array}{r} 187 \\ \times 324 \\ \hline 60588 \end{array}$$

+3

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Notes:

- First, ignore the decimal points and multiply the numbers like whole numbers.
- **What is 187 x 324?**
- Next, count the total number of digits after the decimal point in both numbers.
- How many numbers appear after the decimal point?
- Finally, move the decimal point in the answer so it has the same total number of decimal places.
- What will our final answer be?

Group Practice 2

1. Ignore the decimal points and multiply the numbers like whole numbers.
2. Count the total number of digits after the decimal point in both numbers.
3. Put the decimal point in the answer so it has the same total number of decimal places.

$$28.2 \times 2.58$$

+1 +2

$$\begin{array}{r} 282 \\ \times 258 \\ \hline 72756 \end{array}$$

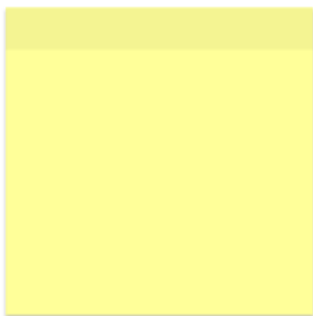
+3

Notes:

- First, ignore the decimal points and multiply the numbers like whole numbers.
- **What is 282 X 258?**
- Next, count the total number of digits after the decimal point in both numbers.
- How many numbers appear after the decimal point?
- Finally, move the decimal point in the answer so it has the same total number of decimal places.
- What will our final answer be?

Group Practice 3 and 4

$$7.75 \times 4.5$$



$$12.7 \times 49.1$$



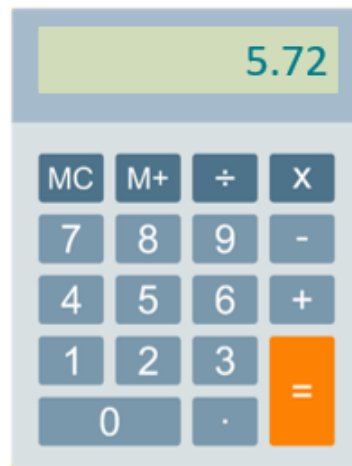
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Dividing Decimals

- Enter the numbers exactly
- Use the $\div$ and = key

Group Practice:

1. $12.75 \div 7.5 =$
2. $1.5 \div 3 =$
3. $25.75 \div 4.5 =$



Notes:

- When it comes to dividing fractions, the most efficient way to perform calculations is with a calculator.
 - If possible, keep a standard calculator with you on the job.
- Remember - If you want to use the calculator on your cell phone or personal device, always check and follow your agency's policies as they relate to use of a personal device on the job.
- To divide decimals with a fraction, be sure to:
 - First, enter the numbers exactly into the calculator.
 - Use the $\div$ and = key to solve the equation.

Dividing Decimals

Divide – How many times does the divisor go into the first number?

Multiply – Multiply your answer by the divisor.

Subtract – Subtract to find what is left.

Bring Down – Bring down the next digit.

Repeat – Continue until there are no digits left.

$$\begin{array}{r}
 2.25 \\
 3 \overline{) 6.75} \\
 \underline{6} \\
 07 \\
 \underline{- 6} \\
 15 \\
 \underline{- 15} \\
 0
 \end{array}$$

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Notes:

- When a calculator is not available, you'll need to know how to complete long division by hand.
- You'll use the same process each time: **divide, multiply, subtract, bring down, and repeat.**
- For now, you will ignore the decimal point, and return to where the decimal point goes shortly.
- Let's walk through an example using 6.75 divided by 3.
- First, **Divide**. How many times does 3 go into 6? Two times, so write 2 above the 6.
- Next, **Multiply**. Two times 3 is 6. Then **Subtract**: 6 minus 6 is 0.
- Then **Bring Down** the 7.
- **Repeat** the process. Divide: 3 goes into 7 two times. Multiply: 2 times 3 is 6. Subtract: 7 minus 6 is 1.
- Bring down the 5 to make 15.
- **Repeat**. Divide: 3 goes into 15 five times. Multiply: 5 times 3 is 15. Subtract: 15 minus 15 is 0.
 - Now there are no more digits to bring down! Let's return to the decimal point.
- **Bring the decimal point straight up into the answer.**
- Now we're finished. 6.75 divided by 3 equals **2.25**.

Group Practice 2

Divide – How many times does the divisor go into the first number?

Multiply – Multiply your answer by the divisor.

Subtract – Subtract to find what is left.

Bring Down – Bring down the next digit.

Repeat – Continue until there are no digits left.



Knowledge Check



Solve the equation: $3.75 \times 0.4 =$

(A). 4.14

(B). 9.4

(C). 1.5

(D). 15

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Knowledge Check



Convert the solution to a fraction: $3.75 \times 0.4 = 1.5$

(A). $\frac{5}{6}$

(B). $\frac{3}{2}$

(C). $\frac{1}{5}$

(D). $\frac{2}{3}$

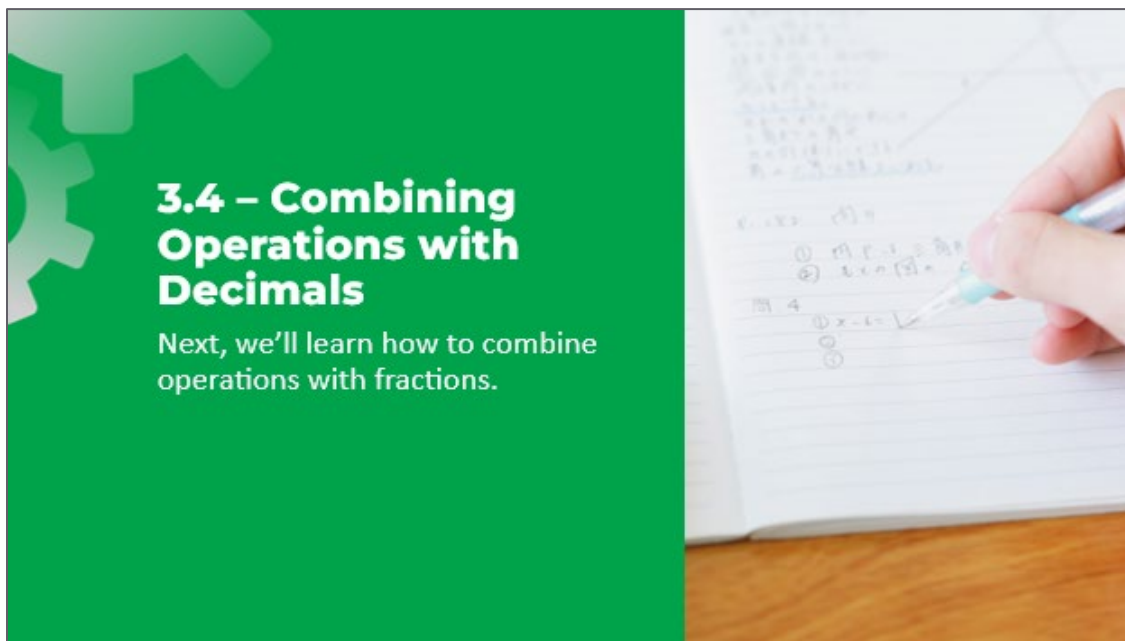
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Summary and What's Next

- Multiplying decimals requires counting decimal places.
- If permitted, use a calculator for quick and efficient problem solving with multiplication and division.

Next, we'll combine all decimal operations to solve multi-step problems using order of operations.

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Notes:

- Next, you'll learn how to combine operations with decimals.

Quick Review

- What is the purpose of PEMDAS?

- What does PEMDAS stand for?



Notes:

- What is the purpose of PEMDAS?
- What does PEMDAS stand for?

PEMDAS: Order of Operations

This resource from **Module 1 – Basic Operations** will be useful in this part of our lesson.

Resource

PEMDAS: Order of Operations

Have you ever wondered which math operation comes first in a problem? The **order of operations** is a set of rules that tells us what to do first in an expression with multiple operations, like addition, subtraction, multiplication, and division.

PEMDAS is an acronym showing the order to follow when solving mathematical expressions with multiple operations: **P**arentheses first, then **E**xponents, followed by **M**ultiplication and **D**ivision (from left to right), and finally **A**ddition and **S**ubtraction (from left to right).

P E M D A S	Parentheses is the first step in the order of operations, so we have to solve anything in () before moving to the next step.	$10 + 6^2 \div 3 \times (8 - 4)$
	Exponents is the second step in the order of operations. Exponents show how many times a number is multiplied by itself. For instance, 6^2 is 6×6 .	$10 + 6^2 \div 3 \times 4$
	The third step in the order of operations is multiplication (or division) . They are prioritized equally and are performed from left to right .	$10 + 36 \div 3 \times 4$ $10 + 12 \times 4$
	The fourth step in the order of operations is addition (or subtraction) . They are prioritized equally and are performed from left to right .	$10 + 48$ 58

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Notes:

- In this section of our lesson, you'll be building off what we learned about basic operations in Module 1.
- You may want to have the "PEMDAS Order of Operations" handout from Module 1 in front of you.
- It will be a useful reference for this part of our lesson.

PEMDAS: Order of Operations

Have you ever wondered which math operation comes first in a problem? The **order of operations** is a set of rules that tells us what to do first in an expression with multiple operations, like addition, subtraction, multiplication, and division.

PEMDAS is an acronym showing the order to follow when solving mathematical expressions with multiple operations: Parentheses first, then Exponents, followed by Multiplication and Division (from left to right), and finally Addition and Subtraction (from left to right).

P E M D A S	Parentheses is the first step to the order of operations, so we have to solve anything in () before moving to the next step.	$10 + 6^2 \div 3 \times (8 - 4)$
	Exponents is the second step in the order of operations. Exponents show how many times a number is multiplied by itself. For instance, 5^2 is 5×5 .	$10 + 6^2 \div 3 \times 4$ $10 + 36 \div 3 \times 4$ $10 + 12 \times 4$
	The third step in the order of operations is multiplication OR division . They are prioritized or equally and are performed <u>from left to right</u> .	$10 + 48$ 58
	The fourth step in the order of operations is addition OR subtraction . They are prioritized or equally and are performed <u>from left to right</u> .	

Combining Operations with Decimals

1. Solve items in parentheses.
2. Solve items with exponents.
3. Solve items with multiplication or division from left to right.
4. Solve items with addition or subtraction from left to right.

Reminder – If applicable, solve the TOP of the fraction bar first.

$$(2.5 + 1.75) \times 2 + 1.5 =$$

$$4.25 \times 2 + 1.5 =$$

$$8.5 + 1.5 =$$

$$10$$

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Notes:

- Solving equations with multiple operations with decimals is no different than if we are using whole numbers. We start by solving any items in parentheses.
- In this example equation, what comes first? What is the solution?
- Next, we'll solve any exponents in the equation. This example doesn't have any exponents, so we can keep going.
- Now it's time for multiplication and division. Remember, always solve in order from left to right.
- What is the next step in our example equation? What is the solution?
- Lastly, solve any items with addition or subtraction from left to right.
- What is our final answer?

Group Practice 1

1. Solve items in parentheses.
2. Solve items with exponents.
3. Solve items with multiplication or division from left to right.
4. Solve items with addition or subtraction from left to right.

Reminder – If applicable, solve the **TOP** of the fraction bar first.

$$\begin{array}{r} 4.8 + 1.2 \\ \hline 2^2 \\ 6 \\ \hline 2^2 \\ \cancel{6} = \frac{3}{\cancel{4}} \end{array}$$



Notes:

- Remember that with division problems, we always solve what is on TOP of the fraction bar first.
- Starting with the top bar, what do we need to solve?
- Moving to the bottom bar, what do we need to solve?
- This will give us $\frac{6}{4}$ which can be simplified to $\frac{3}{2}$

Group Practice 2 and 3

$$\frac{2.5^2 + 3.2}{1.6}$$

$$6 - 2 \times \left(\frac{3}{4} - \frac{1}{4}\right)$$

Solving Equations with Decimals



Part 1 – Adding and Subtracting Decimals

Part 2 – Multiplying Decimals

Part 3 – Dividing Decimals

Part 4 – Solving Mixed Operation Equations with Decimals

Activity

Solving Equations with Decimals

Part 1 – Adding and Subtracting Decimals
Use the method below to solve the equations.

Problem	Adding and Subtracting Decimals	Answer
1. Write the problem vertically and line up the decimal points.	$18.70 + 10.3 = ?$	29.0
2. Add additional zeros if necessary so the numbers have the same number of decimal places.	18.79 $+ 10.30$ -----	29.09
3. Add or subtract from left to right as if the numbers are whole numbers. Bring the decimal point straight down.	28.09	28.09

1. $14.80 + 3.25 =$ 4. $23.50 - 8.75 =$

2. $7.80 + 12.45 =$ 5. $18.40 - 9.85 =$

3. $9.75 + 6.30 =$ 6. $30 - 14.28 =$

Part 2 – Multiplying Decimals
Use the method below to solve the equations.

Problem	Multiplying Decimals	Answer
1. Ignore the decimal points and multiply the numbers the whole numbers.	18.7×3.24	60.708
2. Count the total number of digits after the decimal point in both numbers.	187 $\times 324$ -----	60708
3. Put the decimal point in the answer so it has the same total number of decimal places.	60.708	60.708

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Activity

Solving Equations with Decimals

Part 1 – Adding and Subtracting Decimals

Use the method below to solve the equations.

Adding and Subtracting Decimals		
Method	Example 1	Example 2
1. Write the problem vertically and line up the decimal points.	$18.70 + 10.3 = ?$	$26.7 - 4.92 = ?$
2. Add additional zeros if necessary so the numbers have the same number of decimal places.	$\begin{array}{r} 18.79 \\ + 10.30 \\ \hline 29.09 \end{array}$	$\begin{array}{r} 26.70 \\ - 4.92 \\ \hline 22.78 \end{array}$
3. Add or subtract <u>from right to left</u> as if the numbers are whole numbers. Bring the decimal point <u>straight down</u> .		

1. $14.60 + 3.25 =$

4. $21.50 - 8.75 =$

2. $7.80 + 12.45 =$

5. $18.40 - 9.65 =$

3. $9.75 + 6.30 =$

6. $30 - 14.28 =$

Part 2 – Multiplying Decimals

Use the method below to solve the equations.

Multiplying Decimals	
Method	Example
1. Ignore the decimal points and multiply the numbers like whole numbers.	$\begin{array}{r} 18.7 \times 3.24 \\ \hline 187 \\ \times 324 \\ \hline 60588 \end{array}$
2. Count the total number of digits after the decimal point in both numbers.	
3. Put the decimal point in the answer so it has the same total number of decimal places.	

7. $4.6 \times 2.35 = ?$

8. $7.2 \times 1.4 = ?$

9. $3.75 \times 2.6 = ?$

Part 3 –Dividing Decimals

Use the method below to solve the equations.

Dividing Decimals	
Method	Example
Divide – How many times does the divisor go into the first number? Multiply – Multiply your answer by the divisor. Subtract – Subtract to find what is left. Bring Down – Bring down the next digit. Repeat – Continue until there are no digits left.	$6.75 \div 3$ *Rewrite the equation with a division bracket for hand calculations $\begin{array}{r} 2.25 \\ 3 \overline{) 6.75} \\ \underline{-6} \\ 07 \\ \underline{-6} \\ 15 \\ \underline{-15} \\ 0 \end{array}$

10. $7.35 \div 3 = ?$

11. $8.64 \div 4 = ?$

12. $12.75 \div 5 = ?$

Part 4 – Solving Mixed Operation Equations with Decimals

Use the method below to solve the equations.

Dividing Decimals	
Method	Example
- Solve items in parentheses. - Solve items with exponents. - Solve items with multiplication or division from left to right. - Solve items with addition or subtraction from left to right. *Reminder – If applicable, solve the TOP of the fraction bar first.	$\frac{4.8 + 1.2}{2^2} \rightarrow \frac{6}{2^2} \rightarrow \frac{6}{4} = \frac{3}{2}$

13. $(3.6 + 2.4) \times 1.5$

15. $\frac{5.4 - 1.4}{2^2}$

14. $10.5 - 2.5 \times 3.2$

Knowledge Check



Solve the equation: $\frac{6^2 - 4}{72 + 2^3}$

(A). 0.5

(B). 0.4

(C). 0.6

(D). 0.8

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Knowledge Check



Convert the solution to a fraction: **0.4**

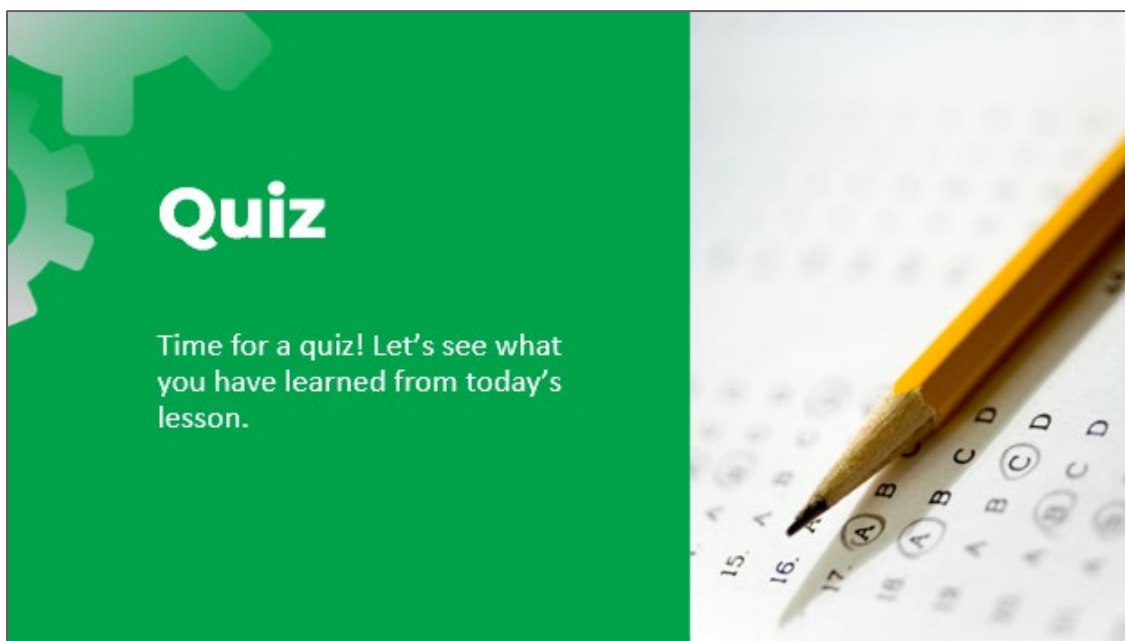
(A). $\frac{4}{10}$ simplified to $\frac{2}{5}$

(B). $\frac{5}{10}$ simplified to $\frac{1}{2}$

(C). $\frac{18}{45}$

(D). $\frac{3}{5}$

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Notes:

- Time for a quiz! Let's see what you have retained from today's lesson.

Revisiting Objectives

- Demonstrate the ability to solve mathematics problems involving decimals.
 - Convert between decimals and fractions to represent values in different forms.
 - Solve addition and subtraction problems involving decimals.
 - Solve multiplication and division problems involving decimal fractions.
 - Apply order of operations to solve multi-step problems involving decimals.

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Notes:

- If you were explaining today's objectives to someone else, how would you summarize what they mean and why they matter?
- Which of today's objectives do you feel most confident about? Which were most challenging?
 - Explain your reasoning.
- Can you give an example of how you could apply one of today's objectives in a real-world situation?
