



Math 6 Notes – Decimals

Reading and Writing Decimals

Decimals are special fractions whose denominators are powers of ten (10, 100, 1,000, 10,000, 100,000, etc). The numerators are the digits to the right of the decimal point. The denominator is a power of ten that is determined by the numbers of digits to the right of the decimal point.

Learning the place value will help to write, read and compare decimal numbers.



- Examples:**
- 1) .56 2 places after the decimal, hundredths place, $\frac{56}{100}$.
 - 2) .532 3 places after the decimal, thousandths place, $\frac{532}{1000}$.
 - 3) 3.2 1 place after the decimal, tenths place, $3\frac{2}{10}$.

The correct way to say a decimal numeral is to:

- 1) Forget the decimal point.
- 2) Say the number.
- 3) Then say its place value name. Don't forget to emphasize the suffix "ths."

- Examples:**
- 1) .53 fifty-three hundredths
 - 2) .702 Seven hundred two thousandths
 - 3) .2 Two tenths
 - 4) .6301 Six thousand three hundred one ten-thousandths

When there are numbers on both sides of the decimal point, the decimal point is read as "and". You say the number on the left side, say "and" for the decimal, then say the number on the right followed with its place value name.



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Example: Write 15.203 in word form.

Fifteen and two hundred three thousandths

You write a decimal in *expanded notation* the same way you write a whole number in expanded notation – using place value.

Example: Write 15.203 in expanded notation.

$$1(10) + 5(1) + 2\left(\frac{1}{10}\right) + 0\left(\frac{1}{100}\right) + 3\left(\frac{1}{1,000}\right)$$

You should also practice writing decimals in standard form when they are given in expanded form or in word form.

Example: Write “three and fifteen thousandths” in standard form.

3.015

Example: Write $3(10) + 4(1) + 5\left(\frac{1}{10}\right) + 7\left(\frac{1}{100}\right)$ in standard form.

34.57

Comparing Decimals

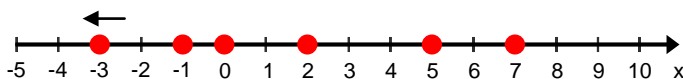
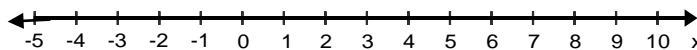
NVACS 6.NS.C.6 Understand a rational number as a point on the number line. Extend number line diagrams and coordinate axes familiar from previous grades to represent points on the line and in the plane with negative number coordinates.

NVACS 6.NS.C.7 Understand ordering and absolute value of rational numbers.

NVACS 6.NS.C.7a Interpret statements of inequality as statements about the relative position of two numbers on a number line diagram.

Graph the following rational numbers on the number line. Then, list the numbers in order from least to greatest.

Example: 7 -1 5 2 0 -3



Solution:

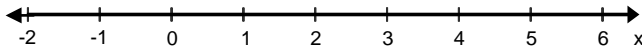
-3, -1, 0, 2, 5, 7

We could write
 $-3 < -1 < 0 < 2 < 5 < 7$



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Example: 1.4 2.8 3.9 2.0 5.3 -2



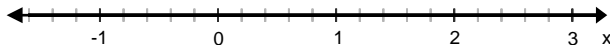
Solution:



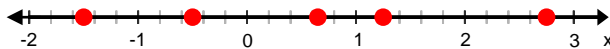
-2, 1.4, 2.0, 2.8, 3.9, 5.3

Graph the following rational numbers on the number line. Then, list the numbers in order from **greatest to least**. Write an inequality statement about the two negative numbers.

Example: 1.25, 2.75, -0.5, 0.65, -1.5



Solution:



1.25, 2.75, 0.65, -0.5, -1.5

-0.5 > -1.5 or -1.5 < -0.5

Another way to compare decimal numerals:

- 1) Write the decimals so that each decimal numeral has the same number of digits (add zeros if needed).
- 2) Forget about the decimal point; the largest number will be the largest decimal numeral.

Example: Which is larger .8032 or .82?

Add 2 zeros to .82 so both numbers will have 4 digits to the right of the decimal point.

.8032 and .8200 \longrightarrow now both have 4 digits to the right of the decimal point (or we can say both are now expressed to the ten-thousandths place).

Since 8200 is larger than 8032, then $.82 > .8032$

Example: Compare .62 and .547 using <, =, or >.

Although students should see that the 6 in the tenths place is greater than the 5 in the tenths place, some do not. Add one zero to .62 so both numbers will have 3 digits to the right side of the decimal



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point (both numbers will be expressed to the thousandths place).
.620 and .547

620 is larger than 547, therefore $.62 > .547$

Examples: Use $>$ or $<$ to compare the decimals.

A) $.9 \square .235$

.900 .235
Since 900 is greater than 235 use $>$.

B) $3.56 \square 9.1$

Since 9 is greater than 3, there is no need to compare the decimals. $<$.

C) $.007 \square .7$

.007 .700
since 700 is greater than 007 use $<$.

Examples: Order each set of numbers below from least to greatest.

6.8, 6, 6.08, 6.018, 6.18
0.188, 0.029, 0.04, 0.014, 0.041

Solution: 6, 6.018, 6.18, 6.08, 6.8
Solution: 0.014, 0.029, 0.04, 0.041, 0.188

Examples: Order each set of numbers below from greatest to least.

1.001, 1.010, 1.0010, 1, 1.1
532.78, 523.7, 532.9, 532.882, 523.87

Solution: 1.1, 1.010, 1.001 = 1.0010, 1
Solution: 532.9, 532.882, 532.78, 523.87, 523.7

Examples: Write two values of x for which the inequality is true.

$3.7 < x < 3.8$

$1.84 > x > 1.83$

$0.29 < x < 0.3$

Solutions: Although answers may vary, sample answers are given.

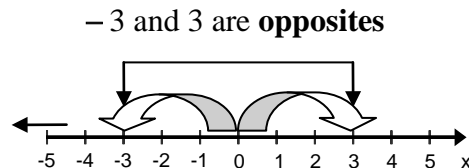
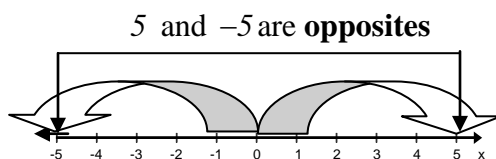
3.71, 3.72, 3.73, ..., 3.79
3.701 - 3.799
etc.

1.839, 1.838, 1.837, ..., 1.831
1.80399 - 1.8301
etc.

0.291, 0.292, 0.29, ..., 0.299
0.2901 - 0.2999
etc.

NVACS 6.NS.C.6a Recognize opposite signs of numbers as indicating locations on opposite sides of 0 on the number line; recognize that the opposite of the opposite is the number itself, e.g., $-(-3) = 3$, and that 0 is its own opposite.

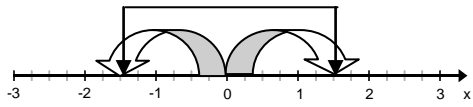
Opposites are numbers that are the same distance from 0 on a number line but on the other side of 0.



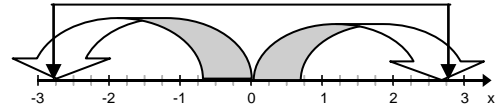


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1.5 and -1.5 are opposites



2.75 and -2.75 are opposites



What is the opposite of 0? 5? -7? 0.75? -1.75? 2.9?

Answers 0 -5 7 -0.75 1.75 -2.9

And now just to see if you are paying attention let me ask...

What is the opposite of 2.5?

$$- 2.5 = -2.5$$

What is the opposite of -2.5?

$$- (-2.5) = 2.5$$

“What is the opposite of the opposite of 4?” We could write this as

$$- (-2.5) = 2.5$$

What is the opposite of the opposite of -4?” We could write this as

$$- (-(-2.5)) = -2.5$$

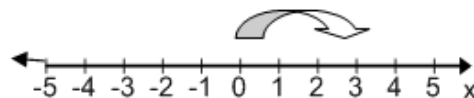
NVACS 6.NS.C.7 Understand ordering and *absolute value of rational numbers*.

NVACS 6.NS.C.7c Understand the absolute value of a rational number as its distance from 0 on the number line; interpret absolute value as magnitude for a positive or negative quantity in a real-world situation.

Absolute Value – is the distance from 0 on a number line.

Examples: $|-3| = 3$ since -3 is 3 units to the left of 0.

$|3| = 3$ since 3 is 3 units to the right of 0.





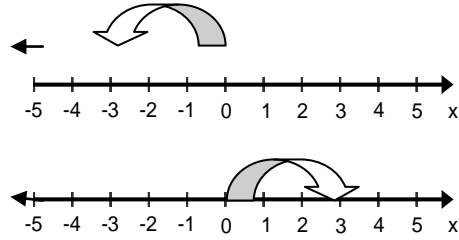
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So both $|-3|$ **and** $|3|$ equal 3 because the distance from zero is 3 units. It doesn't matter which direction.

$|+5| = 5$ since 5 is 5 units from 0.

Examples: $|-2.9| = 2.9$ since -2.9 is 2.9 units to the left of 0.

$|2.9| = 2.9$ since 2.9 is 2.9 units to the right of 0.



$$|-19| = 19$$

$$|0| = 0$$

$$|936| = 936$$

$$|-257| = 257$$

$$|0.5| = 0.5$$

$$|-0.8| = 0.8$$

$$|-2.3| = 2.3$$

$$|-0.375| = 0.375$$



Students need to understand that if $|x| = 5$ then $x = 5$ **and** $x = -5$.

We can write that as $x = \pm 5$.

NVACS 6.NS.C.7b Write, interpret, and explain statements of order for rational numbers in real-world contexts.

Example: In a swimming race at the Summerlin's Summer Events, 5 swimmers competed in the 100 meter race. The participants and their times are in the table below.

Racer	Time (min:sec)
Karl	2 : 18
Mike	2 : 06
Juan	2 : 10
Estaban	2 : 22

List the participants in the correct order for 1st place, 2nd place, 3rd place and 4th place.

Solution: Mike, Juan, Karl and Estaban

Example: In a car race, Elvin's car finished in third place with a time of 56 minutes and 14 seconds. The table shows the times of the other racers as compared to Elvin's time.

Racer	Time (min:sec)
Annie	+0 : 18
John	-0 : 06
Roy	-0 : 10



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Emily	+0 : 22
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Who won the race? How do you know?

- Emily; Emily's time is furthest from Elvin's.
- John; John's time is closest to Elvin's.
- Roy; Roy's time is less than Elvin's and further from Elvin's time.
- Annie; Annie's time is greater than Elvin's and closer to Elvin's time than Emily's.

Solution: C

NVACS 6.NS.C.7d *Distinguish comparisons of absolute value from statements about order.*

Example: Katelin bought a large screen TV at a store that allows her to pay for it over time. Her current account balance is less than \$452.57 dollars. How could you describe Katelin's debt to the store?

Solution: Katelin owes more than \$452.57

Example: Tim has an account balance that is less than -75.42 dollars. Describe Tim's debt.

Solution: Tim owes more than \$75.42

Example: David, a deep sea diver, descended to a depth below -34.5 feet. Which of the following describes the deepest depth of David's dive?

A	Greater than 34.5 feet
B	34.5 feet
C	Less than 34.5 feet

Solution: A

Example: Bill bought some stock for \$47. After one month the stock had dropped in value below \$30. How would you describe the size of his loss?

A	Greater than $ -17 $
B	Less than $ -17 $
C	$ -17 $
D	Greater than $ -47 $

Solution: A



Math 6 Notes – Decimals

Estimation

An *estimation* strategy for *adding and subtracting decimals* is to round each number to the nearest whole number and then perform the operation.

Examples:

$$\begin{array}{r} 25.8 \approx 26 \\ -14.2 \approx -14 \\ \hline 12 \end{array}$$

12 would be our estimate

$$\begin{array}{r} 7.98 \approx 8 \\ -6.2 \approx -6 \\ \hline 2 \end{array}$$

2 would be our estimate

An *estimation* strategy for *multiplying and dividing decimals*:

- When multiplying, round numbers to the nearest non-zero number or to numbers that are easy to multiply.
- When dividing, round to numbers that divide evenly (compatible numbers), leaving no remainders.
- Remember, *the goal of estimating is to create a problem that can easily be done mentally.*

Example:

$$\begin{array}{r} 38.2 \rightarrow 40 \\ \times 6.7 \rightarrow \times 7 \\ \hline 280 \end{array}$$

280 would be our estimate

$$33.6 \div 4.2 \rightarrow 32 \div 4 = 8$$

8 would be our estimate

Estimating can be used as a test-taking strategy. Use estimating to calculate your answer first, so you can eliminate any obviously wrong answers.

Example: A shopper buys 3 items weighing 4.1 ounces, 7.89 ounces and 3.125 ounces. What is the total weight?

- A. 0.00395
- B. 3.995
- C. 14.0
- D. 15.115

Round the individual values:

$$\begin{array}{l} 4.1 \rightarrow 4 \\ 7.89 \rightarrow 8 \\ 3.125 \rightarrow +3 \\ 15 \end{array}$$

The only two reasonable answers are C) and D). Eliminating unreasonable answers can help students to avoid making careless errors. **D is the correct solution.**

Sometimes we need a closer estimate without getting an exact answer. **Adjusting the front –end estimation** is a method we could use.



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1. Subtract the values of the front digits
2. Adjust your estimate by comparing the second digits.

5.87 → **5**
Example: $\underline{-2.29} \rightarrow \underline{-2}$
3

5.87
-2.29 **8 > 2**

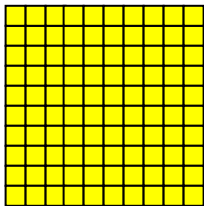
The actual answer is greater than \$3.00

Decimal Operations

Adding and Subtracting Decimals

NVACS 6.NS.B.3 *Fluently add, subtract, multiply and divide multi-digit decimals using the standard algorithm for each operation.*

One method students should have seen from previous grades was the use of base ten blocks. A review of this strategy may help students move into decimal addition and then subtraction. The pieces used look like the following:



is used to represent 1 whole,



is used to represent $\frac{1}{10}$,

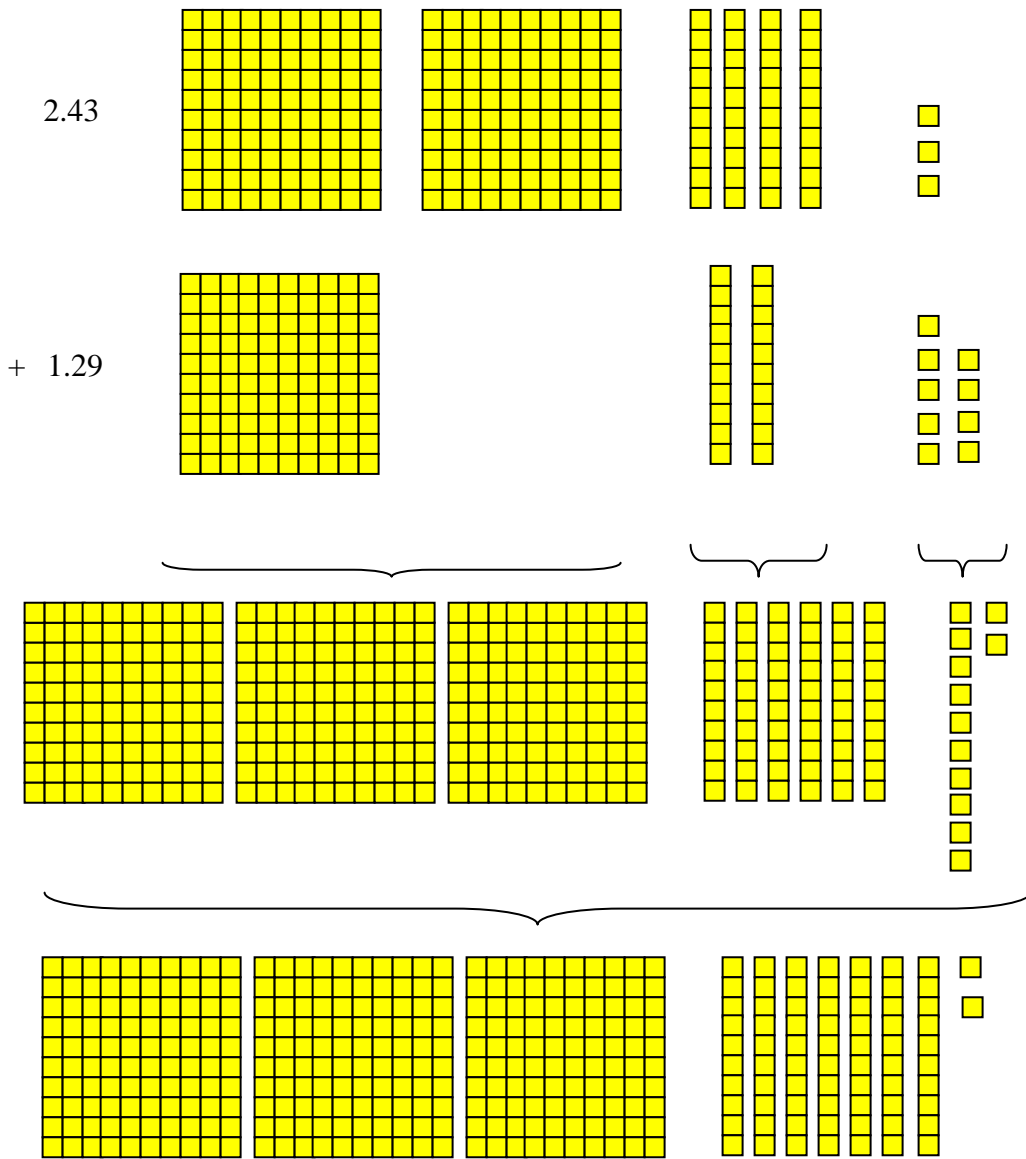


is used to represent $\frac{1}{100}$.



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To add decimals using the base ten blocks would look like the following example. $2.43 + 1.29 =$



3.72

When you learned to add and subtract whole numbers, we made sure that the numbers lined up vertically by their place value. The same process is followed when adding or subtracting decimals. The decimal points should be lined up and all the digits should line up according to their place value. If there is a missing digit for a specific place value, add a zero for that place value.



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Algorithm for Addition / Subtraction of Decimals

1. Rewrite the problems vertically, lining up the decimal points.
2. Fill in spaces with zeros.
3. Add or subtract the numbers.
4. Bring the decimal point straight down.

Example: $1.23 + .4 + 12.375$

$$\begin{array}{r} 1.23 \\ .4 \\ +12.375 \\ \hline \end{array}$$

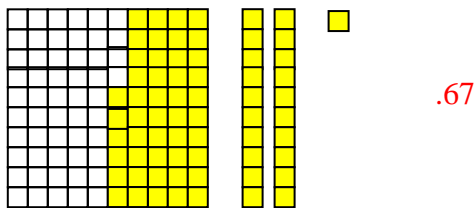
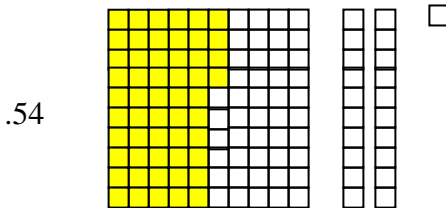
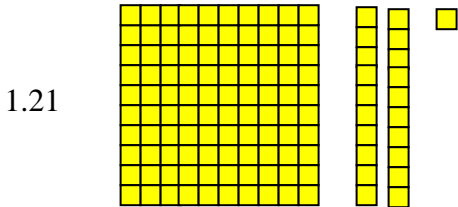
Rewrite vertically lining up the decimal points.

$$\begin{array}{r} 1.230 \\ .400 \\ +12.375 \\ \hline 14.005 \end{array}$$

Fill in zeros where necessary so that all three numbers have the same decimal place value..

Subtraction using the base 10 blocks could be modeled as follows in the next example.

$1.21 - .54 =$





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But once again, students must eventually move on to a procedural method for subtraction decimals.

Example:

$$9.86 - 4.823$$

$$\begin{array}{r} 9.86 \\ - 4.823 \\ \hline \end{array}$$

$$\begin{array}{r} 9.860 \\ - 4.823 \\ \hline 5.037 \end{array}$$

Rewrite vertically lining up the decimal points.

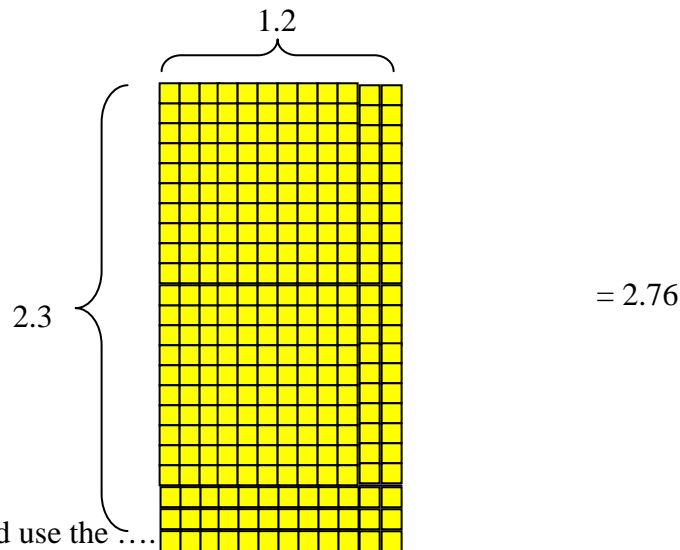
Fill in zeros where necessary so that both numbers have the same decimal place value.

Subtract.

Multiplying Decimals

One method students might have seen from previous grades was the use of base ten blocks – or rectangular arrays. A review of this strategy may help students move into decimal multiplication.

Using the base ten blocks we build a rectangular array. For example, $(1.2)(2.3) =$



Procedurally, we would use the

Algorithm for Multiplication of Decimals

1. Rewrite the numbers vertically.
2. Multiply normally, ignoring the decimal point
3. Count the number of digits to the right of the decimal points
4. Count that same number of places from right to left in the product (answer)

Example: 1.63×4.2



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$$\begin{array}{r}
 1.63 \\
 \times 4.2 \\
 \hline
 326 \\
 652 \\
 \hline
 6846
 \end{array}$$

Counting the number of digits to the right of the decimal points, there are two digits to the right of the decimal in the multiplicand and one to the right of the decimal in the multiplier; that's 3 digits altogether.

The answer is 6.846.

Now, count the same number of places, 3, from right to left in the answer. That's where the decimal point is placed.

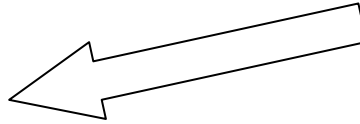
NVACS 6.NS.B.2 Fluently divide multi-digit numbers using the standard algorithm.

Students will need ample practice to truly master this standard to the level of fluency. Long division problems using the standard algorithm (whether whole number or decimal numerals) could be practiced daily, and over time, in warm ups and/or long term memory review.

Remind students of the steps for division which are:

1. Divide
2. Multiply
3. Subtract
4. **COMPARE**
5. Bring down.... andrepeat process if needed

This step is extremely important – corrected by explicitly teaching this step!



$$\begin{array}{r}
 1077 \\
 24 \overline{)25,863} \\
 \underline{-24} \\
 18 \\
 \underline{-0} \\
 186 \\
 \underline{-168} \\
 183 \\
 \underline{168} \\
 15
 \end{array}$$

$1,077 \frac{15}{24}$ or $1,077 r15$

Students should be explicitly taught to approximate the divisor to an easier number to divide. In this case, since most of us do not know our 24 times tables, we could approximate to 25 (or 20) to get an **idea** of how many 25's in 186 or 183.



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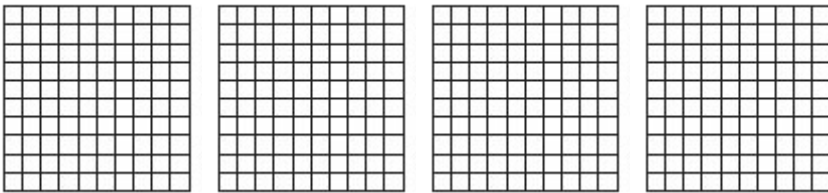
Dividing Decimals

One method students should have seen from previous grades was the use of base ten blocks. A review of this strategy may help students move into decimal division.

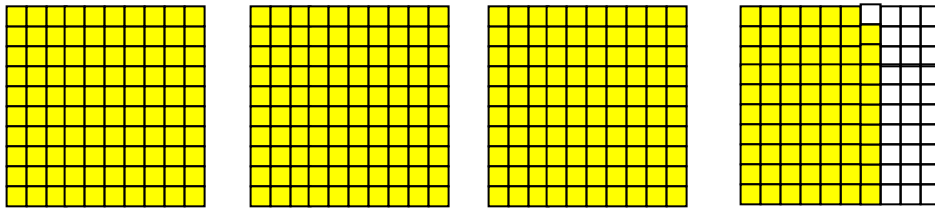
Use decimal grids to find each quotient.

Example: $3.69 \div 3 =$

Shade the grids to model 3.69.

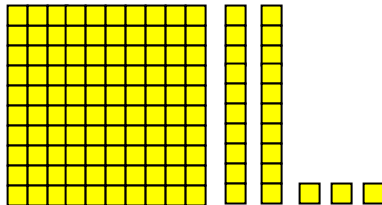


Solution:

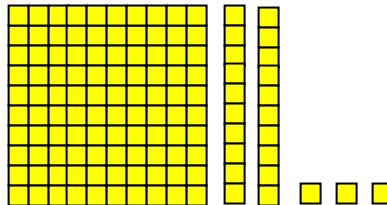


Separate the shaded grids into 3 equal groups. How many are in each group?

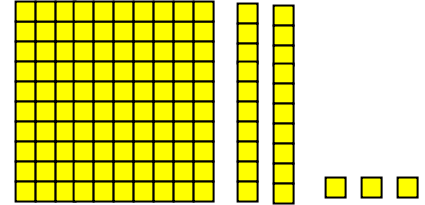
Group 1



Group 2



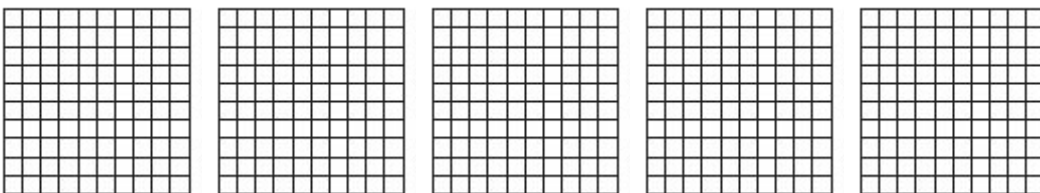
Group 3



Solution 1.23

Example $4.35 \div 0.5 =$

Shade the grids to model 4.35



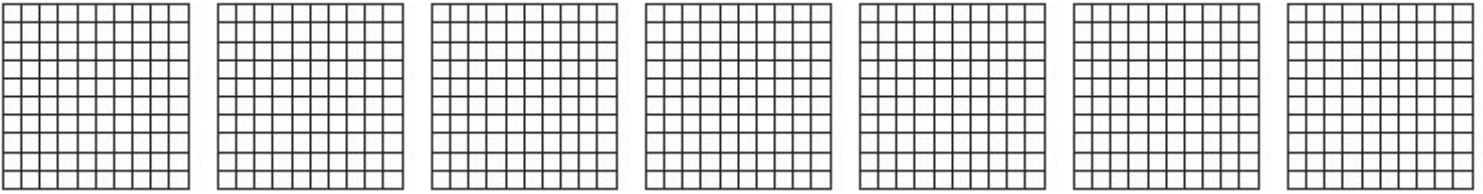


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Separate the shaded grids into groups of 0.5. How many groups do you have?

Example

Use decimal grids to divide $6.74 \div 2 =$



Remember to point out to students that if a number has no decimal point, the decimal point is understood to go after the number.

A common error that students make when dividing a decimal by a whole number is to clear the decimal from the dividend and move the decimal in the divisor—and then add that same number of zeros to the dividend. Again, emphasize that an “invisible” decimal exists at the end of every whole number so no movement of the decimal is necessary when dividing by a whole number.

Begin with simple examples such as:

$$\begin{array}{r} 4 \\ 7 \overline{)28} \\ -28 \\ \hline 0 \end{array}$$

$$\begin{array}{r} 4 \\ 7 \overline{)2.8} \\ -28 \\ \hline 0 \end{array}$$

$$\begin{array}{r} 4 \\ .7 \overline{)2.8} \\ -28 \\ \hline 0 \end{array}$$

$$\begin{array}{r} 40. \\ .7 \overline{)28.0} \\ -28 \\ \hline 00 \\ -0 \\ \hline \end{array}$$

$$\begin{array}{r} 40. \\ .007 \overline{)280} \\ -28 \\ \hline 00 \\ -0 \\ \hline \end{array}$$



Algorithm for Dividing Decimals

1. Move the decimal point as far to the right as possible in the divisor.
2. Move the decimal point the same number of places to the right in the dividend.
3. Bring up the decimal point straight up into the quotient.
4. Divide the way you normally would.



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Example:

$$.31 \overline{)25.8354}$$

Step 1: Move the decimal point two places to the right in the divisor.

$$31 \overline{)2583.54}$$

Step 2: Move the decimal point two places to the right in the dividend.

$$\begin{array}{r}
 83.34 \\
 31 \overline{)2583.54} \\
 \underline{-248} \\
 103 \\
 \underline{-93} \\
 105 \\
 \underline{-93} \\
 124 \\
 \underline{-124} \\
 0
 \end{array}$$

Step 3 and 4: Bring up the decimal point straight up into the quotient and divide the way you normally would.

$7 \div 2.8 =$

$16 \div .32 =$

$48 \div 0.06 =$

$$\begin{array}{r}
 .4 \\
 7 \overline{)2.8} \\
 \underline{28} \\
 0
 \end{array}$$

$$\begin{array}{r}
 .02 \\
 16 \overline{)32} \\
 \underline{32} \\
 0
 \end{array}$$

$$\begin{array}{r}
 800. \\
 .06 \overline{)48.00} \\
 \underline{-48} \\
 0 \\
 \underline{-0} \\
 0 \\
 \underline{-0} \\
 0
 \end{array}$$

Remember when operating with decimals, 6th grade students are expected to be fluent with all 4 operations.

Example: The four members of a swimming relay team swam 100 m each in the following times: 1 min 20.4 sec, 1 min 10.3 sec, 1 min 30.5 sec, and 1 min 25.8 sec. What was the total time for the relay?

Example: At 6:00 A.M. the temperature was 86.7° F. By 3:00 P.M. the temperature had risen 15.8° F. Four hours later it had dropped 3.9° F. What was the temperature at 7:00 P.M.?



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Example: In a 100 gram serving of bran flakes with raisins, there are 8.4 g of protein, 8 g of vitamins and minerals, 3 g of fiber, 1.4 grams of fat, and the remaining part is carbohydrates. How many grams of carbohydrates are there in the 100g serving?

Example: Paolo earns 409.92 each week. The following deductions are subtracted from his pay: federal income tax, \$101.26; state income tax, \$20.73; Social Security \$13.23, medical insurance, \$15.12; union dues, \$9.40. How much money does Paolo take home each week?

Example: Janice had \$399.35 at the beginning of the month. During the month she made purchases of \$17.89, \$26.90, \$16.35, and \$15.28. She also earned an additional \$68.45. What is the total of the new charges on her account for the month?

Example: The Cronin family's monthly budget allows \$100 per month for cable television charges. Their basic monthly service costs \$78.75. Last month they purchased several movies costing \$2.98, \$4.50, \$1.99, and \$4.95. How much money did they have in their television budget at the end of the month?

Example: At the beginning of each day of a five-day trip, Carol recorded the odometer reading on her car and the purpose of the day's trip. When she returned home at the end of the fifth day, the odometer on her car read 81,253.7 miles. How many miles did Carol drive for business purposes during the 5 days?

Day	Odometer Reading	Purpose
1	79,803.6	Business
2	80,170.1	Business
3	80,340.9	Pleasure
4	80,562.3	Business
5	80,795.1	Business

Example: How thick is a ream of 500 sheets of paper if each sheet is .0025 in thick?

Example: A 12 in steel cable weighs 0.428 lb. How much does 12.8 ft weigh?

Example: A nautical mile is equivalent to 6,080.27 ft. If a ship is 3.8 nautical miles from the lighthouse, what is the distance in feet?

Example: Carla Russo's wages are increased from \$13.80 per hour to \$14.25 per hour. If she works 35 hours each week, how much more money will she earn in one year?

Example: Max earns \$13.50 per hour if he works 40 hours or less in one week. When he works more than 40 hours in one week, his hourly rate for the number of hours over 40 is 1.5 times his regular rate. How much will he be paid for working 53 hours in one week?

Example: Paula earns \$450 a week. If she works 35 h each week, what is her hourly rate of pay to the nearest cent?



Math 6 Notes – Decimals

Example: At an average rate of 55 km/h, how long will it take to drive 225 km, to the nearest tenth of an hour?

Example: A job is advertised at a yearly salary of \$36,799. If there are 245 working days a year and 7 h in a working day, what is the hourly rate to the nearest cent?

Example: Gene bought a car for \$3,500. After 4.5 years, he sold it for \$1,520. How much per year did it cost Gene to use the car?

Example: A monthly pass for a commuter train costs \$84. A book of tickets for 12 rides costs \$30.25. A single ride costs \$2.75. Johanna rides the train an average of 44 times per month.

A. To the nearest cent, how much does Johanna save per ride by buying a monthly pass instead of buying a single ride?

B. To the nearest cent, how much does Johanna save per ride by buying the monthly pass instead of buying books of 12 tickets?

Example: An airplane flew 1,750 km in 4.5 h. To the nearest tenth, what was its speed in kilometers per hour?

Example: How many silk flowers at \$1.25 each can you buy with \$25.00?

Example: A carton of artificial bricks costs \$12.95 and a gallon of adhesive costs \$15.99. Sheila and Paul need 6 cartons of bricks and 3 gallons of adhesive for a wall in their den. They saved \$300 to decorate the den.

A. How much will the brick and adhesive cost them?

B. Do they have enough money for the project?

C. After they finish the den, they want to buy a rug. How much money will they have left to use?

Example: A GTX-6 sports car gets 36 mi per gallon without the air conditioning. With the air conditioning it gets 3.5 miles fewer per gallon. How many gallons of gas are needed to drive 312 mi with the air conditioning?

Example: Leo drove 1,256.8 mi last month on 40 gal of gas. How many miles to the gallon did his car get?

Example: Internet rental of the cruise ship cost \$11.95 for the first 5 min and \$2.30 for each additional minute. How much will an 10-minute rental cost?

Example: How much will 3.8 lb of seafood cost at \$11.99 a pound?



Math 6 Notes – Decimals

Example: A round-trip bus ticket to Center City will cost Lee \$7.60. If he drives, he estimates his cost will be \$4.85 for gas and \$1.50 per hour to park. If he plans to be in the city for 3.5 hr, will it cost less to drive or take the bus? How much less?

Example: Delsin runs a small used bookstore. Last month his store used 8,000 kWh of electricity. Using the rate schedule below, what was his bill?

<i>Electric Rate Schedule</i>	
<i>First 2,000 kWh</i>	<i>\$0.053 per kWh</i>
<i>Over 2,000 kWh</i>	<i>\$0.062 per kWh</i>

Example: The Jackson family bought a new car for \$30,000. Because of a special sale, the price was reduced by a rebate of \$1,000. The Jacksons then made a down payment of \$9,000. They paid the rest of the money over 36 months with an interest-free loan. What was the Jackson's monthly car payment? Round your answer to the nearest cent.

Example: A special blend of wild birdseed costs 15.99 for 20 pounds. To the nearest penny, how much will 50 pounds cost?

Example: The price per gallon of gasoline is commonly given with an additional $\frac{9}{10}$ cent. For example, a station that advertises gas for $\$3.79\frac{9}{10}$ per gallon sells gasoline at \$3.799 per gallon.
Audrey puts 12.8 gallons in her car. The gas costs $\$4.09\frac{9}{10}$. What is the total cost of the gas?

ADD



Math 6 Notes – Decimals



Grades 6-8, Claim 2

<p>Task Model 1</p> <p>DOK Levels 2, 3</p> <p>Target A: Apply mathematics to solve well-posed problems in pure mathematics and arising in everyday life, society, and the workplace.</p>	<p>Example Item 5 (Grade 6): Primary Target 2A (Content Domain NS), Secondary Target 1C (CCSS 6.NS.3), Tertiary Target 2C</p> <p>Carlos has 2.4 meters of wire. He needs 1.7 meters for one project and 0.8 meter for another project.</p> <p>Shade the model to represent the total amount of wire Carlos needs. Each row in the model represents 1.0 meter. Does Carlos have enough wire?</p> <ul style="list-style-type: none"> If so, answer how much wire he will have left over. If not, answer how much more he needs. <div data-bbox="760 382 1263 793"> </div> <p>Rubric: (2 points) The student shades 25 sections of the model and places 0.1 in the bottom box. (1 point) The student completes only one of the tasks correctly.</p> <p>Response Type: Hot Spot, Drag and Drop</p>
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