

Chapter 2	<p>Rational Numbers: any number that can be written as a fraction; a number that can be written as a ratio of two <u>integers</u> (a positive or negative whole number.)</p> <p><i>Example:</i> $-2 = \frac{-2}{1}$, $0.25 = \frac{1}{4}$</p>
MAFS.7.NS.1.2	Convert a rational number to a decimal using long division; know that the decimal form of a rational number terminates in 0s or eventually repeats.
Essential Question	<p>How do you write a rational number as a decimal?</p> <p>In this lesson I am <i>converting between decimals and fractions</i>, so I can <i>better understand equality</i>.</p>
2.1 Rational Numbers	<p>Terminating decimal: a decimal that ends <i>Example:</i> 1.5, -0.25, 10.625</p> <p>Repeating decimal: a decimal that repeats <i>Example:</i> $-1.333... = -1.\overline{3}$</p>
Homework 2.1 Practice A #1-8	<p>Write the rational number as a decimal.</p> <p>1. $-\frac{6}{5}$ 2. $-7\frac{3}{8}$ 3. $-\frac{3}{11}$ 4. $1\frac{5}{27}$</p>
Place Value	<p>. tenths, hundredths, thousandths</p> <p>(the place value the decimal ends becomes the denominator: 10, 100, 1000)</p>
Homework 2.1 Practice A #9-16	<p>Write the decimal as a fraction or a mixed number in simplest form.</p> <p>5. -0.7 6. 0.125 7. -3.1 8. -10.25</p>
	<p>Your skateboard ramp is $2\frac{3}{8}$ feet high. Your friend's skateboard ramp is $2\frac{2}{5}$ feet high. Which skateboard ramp is higher?</p>

MAFS.7.NS.1.1	Apply and extend previous understandings of addition and subtraction to add and subtract rational numbers.
Essential Question	How do you add rational numbers? In this lesson I am <i>using what I know about adding integers</i> , so I can <i>add rational expressions</i> .
2.2 Adding Rational Numbers	Adding rational numbers with the same signs= add, keep sign Adding rational numbers with different signs= subtract, use bigger sign
Homework 2.2 Practice A #1-8	<p>Add.</p> <p>1. $-\frac{7}{8} + \frac{1}{4}$</p> <p>2. $-6\frac{1}{3} + \frac{20}{3}$</p> <p>3. $2 + \left(-\frac{7}{2}\right)$</p> <p>4. $-12.5 + 15.3$</p> <p>5. $-8.15 + (-4.3)$</p> <p>6. $0.65 + (-2.75)$</p>

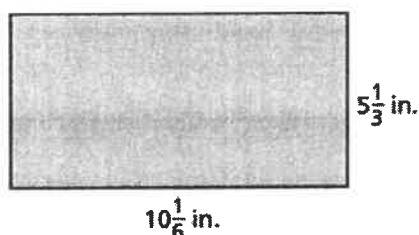
Homework
2.2 Practice A
#8-10

Evaluate the expression when $a = \frac{1}{2}$ and $b = -\frac{5}{2}$.

7. $b + 4a$

8. $|a + b|$

Find the perimeter (add up all the sides).



The change in the price of a certain brand of cereal from 2010 to 2012 is shown in the table.

Year	Change (in dollars)
2010	+0.30
2011	+0.20
2012	-0.20

In 2009 the price of cereal was \$3.69.

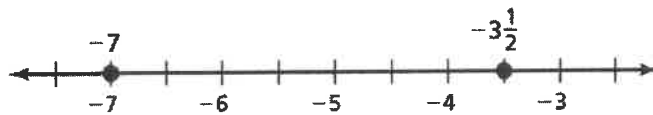
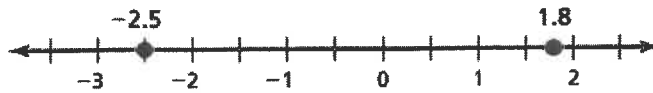
What was the price of the cereal at the end of 2012?

The total change in the price of a certain brand of cereal from 2008 to 2012 was -\$0.20.
Complete the table to show possible price changes in 2010 and 2012.

Year	Change in Dollars
2008	+0.20
2009	+0.30
2010	<input type="text"/>
2011	-0.20
2012	<input type="text"/>
Total	-0.20

MAFS.7.NS.1.1	Understand subtraction of rational numbers as adding the additive inverse, $p - q = p + (-q)$. Show that the distance between two rational numbers on the number line is the absolute value of their difference, and apply this principle in real-world contexts.
Essential Question	How do you subtract rational numbers? In this lesson I am <i>using what I know about subtracting integers</i> , so I can <i>subtract rational expressions</i> .
2.3 Subtracting Rational Numbers	<u>"add the opposite"</u> (make the minus a plus and take the opposite sign of the number behind it) then use rules from adding
Homework 2.3 Practice A #1-6	<div> <div>1. $\frac{1}{3} - \left(-\frac{1}{3}\right)$</div> <div>2. $-3\frac{1}{3} - \frac{5}{6}$</div> </div> <div> <div>3. $4\frac{1}{2} - 5\frac{1}{4}$</div> <div>4. $-8.4 - 6.7$</div> </div> <div> <div>5. $-20.5 - (-20.5)$</div> <div>6. $0.41 - (-0.07)$</div> </div>
Homework 2.3 Practice A #7-9	7. Find the distance between -7.5 and -15.3 on a number line.

Find the distance between the two numbers on the number line.



A gallon jug of milk is $\frac{3}{4}$ full. After breakfast the jug is $\frac{1}{12}$ full. Find the difference of the amounts before breakfast and after breakfast.

You buy a bag of dog food for \$12.59 and a bottle of dog shampoo for \$4.75. How much more did the dog food cost than the shampoo?

MAFS.7.NS.1.2	Apply and extend previous understandings of multiplication and division to multiply and divide rational numbers.
Essential Question	<p>How do you multiply/divide rational numbers?</p> <p>In this lesson I am <i>using what I know about multiplying/dividing integers</i>, so I can <i>multiply/divide rational expressions</i>.</p>
2.4 Multiplying/ Dividing Rational Numbers	<p>Same signs- multiply/divide numbers and get a positive answer</p> <p>Different signs- multiply/divide numbers and get a negative answer</p>
Homework 2.4 Practice A #5-16	<p>Multiply or divide. Write fractions in simplest form.</p> <p>1. $-\frac{6}{5} \div \left(-\frac{1}{2}\right)$ 2. $\frac{1}{3} \div \left(-2\frac{2}{3}\right)$ 3. $1.8(-5.1)$</p> <p>4. $-6.3(-0.6)$ 5. $-\frac{2}{3} \cdot 7\frac{7}{8} \cdot \frac{3}{2}$ 6. $-7.2 \cdot 0.1 \cdot (-100)$</p>
	<p>$9.408 \div (-2.45)$</p>

	<p>How many $\frac{2}{3}$-ounce packages of peanuts can be made with 8 ounces of peanuts? Explain how you found your answer.</p>
	<p>A 13.5-gallon gasoline tank is $\frac{4}{5}$ full. How many gallons will it take to fill the tank?</p>
	<p>Sandy uses $\frac{2}{7}$ of a pound of raisins in each batch of raisin bread.</p> <p>Yesterday, Sandy used $\frac{5}{7}$ of a pound of raisins. How many batches of raisin bread did Sandy make yesterday?</p>
	<p>Joe and Scott equally share a pizza.</p> <p>If Scott eats $\frac{1}{2}$ of his portion of the pizza, what fraction of the whole pizza does he eat?</p>
	<p>In Homestead, $\frac{2}{5}$ of the households own pets. Of the households with pets, $\frac{1}{3}$ have cats.</p> <p>What fraction of the households in Homestead own cats?</p>

