

Have tb pg 110 and our notebook paper out and ready to correct. Count the # of problems you attempted at the top of your paper (9) and begin correcting.

1. Estimate:  $31,969 \div 488$  (Explore Activity)

Round the numbers and then divide.

$$31,969 \div 488 = \underline{30,000} \div \underline{500} = \underline{60}$$

2.  $3,072 \div 32 = \underline{96}$       3.  $4,539 \div 51 = \underline{89}$

$$\begin{array}{r} 96 \\ 32 \overline{) 3,072} \\ \underline{-288} \phantom{00} \\ 192 \\ \underline{-192} \\ 0 \end{array}$$

$$\begin{array}{r} 89 \\ 51 \overline{) 4,539} \\ \underline{-408} \phantom{00} \\ 459 \\ \underline{-459} \\ 0 \end{array}$$

5.  $2,226 \div 53 = \underline{42}$       6. Divide 4,514 by 74. 61

Sep 9-1:01 PM

9.  $39,751 \div 313 = \underline{127}$

11. During a food drive, a local middle school collected 8,982 canned food items. Each of the 28 classrooms that participated in the drive donated about the same number of items. Estimate the number of items each classroom donated. (Explore Activity)

300 items

$$\begin{array}{r} \boxed{8982} \quad \boxed{28} \\ \downarrow \quad \downarrow \\ 9000 \div 30 \end{array}$$

12. A theater has 1,120 seats in 35 equal rows. How many seats are in each row? (Example 1)

32 seats

Sep 9-1:06 PM

13. There are 1,012 souvenir paperweights that need to be packed in boxes. Each box will hold 12 paperweights. How many boxes will be needed?  
(Example 2)

85 boxes

Sep 9-1:07 PM

LESSON  
**19.1 Rational Numbers and Decimals**

Tear out pages 549 - 553, return book, then fill in page 549

**EXPLORE ACTIVITY** FL 7.NS.1.2b, 7.NS.1.2d

**Describing Decimal Forms of Rational Numbers**

A **rational number** is a number that can be written as a ratio of two integers  $a$  and  $b$ , where  $b$  is not zero. For example,  $\frac{4}{7}$  is a rational number, as is 0.37 because it can be written as the fraction  $\frac{37}{100}$ .

- A** Use a calculator to find the equivalent decimal form of each fraction. Remember that numbers that repeat can be written as 0.333... or  $0.\bar{3}$ .

Fraction $\frac{a}{b}$	$\frac{1}{4}$	$\frac{5}{8}$	$\frac{2}{3}$	$\frac{2}{9}$	$\frac{12}{5}$	$\frac{1}{5}$	$\frac{7}{8}$
Decimal Equivalent	0.25	0.625	0.666...	0.222...	2.4	0.2	0.875

- B** Now find the corresponding fraction of the decimal equivalents given in the last two columns in the table. Write the fractions in simplest form.
- C** **Conjecture** What do you notice about the digits after the decimal point in the decimal forms of the fractions? Compare notes with your neighbor and refine your conjecture if necessary.

The digits after the decimal point either repeat or terminate.

Handwritten notes:  $\frac{a}{b}$  can be written as a fraction,  $b \neq 0$ ,  $\frac{5}{0}$ ,  $\frac{0}{5}$ , stop or end

Repeat	Terminate
0.666...	0.25
$0.\bar{6}$	0.625
0.222...	2.4
$0.\bar{2}$	0.2
	0.875

Sep 9-1:09 PM

**Reflect**

1. Consider the decimal 0.1010010001000001.... Do you think this decimal represents a rational number? Why or why not?

0.101010...

NO - It is not a repeating decimal

2. Do you think a negative sign affects whether or not a number is a rational number? Use  $-\frac{8}{5}$  as an example.

NO - The fraction is still  $\frac{a}{b}$

pg. 550

3. Do you think a mixed number is a rational number? Explain.

$1\frac{3}{5} = \frac{8}{5}$  YES! It can be written  $\frac{a}{b}$

Sep 10-3:43 PM

pg. 550 **Writing Rational Numbers as Decimals**

You can convert a rational number to a decimal using long division. Some decimals are **terminating decimals** because the decimals come to an end. Other decimals are **repeating decimals** because one or more digits repeat infinitely.

Write each rational number as a decimal.

**A**  $\frac{5}{16}$

Divide 5 by 16.  
Add a zero after the decimal point.  
Subtract 48 from 50.  
Use the grid to help you complete the long division.

		0.	3	1	2	5	
16	)	5.	0	0	0	0	
		-4	8				
			2	0			
			-1	6			
				4	0		
				-3	2		
					8	0	
					-8	0	
						0	

**A** Add zeros in the dividend and continue dividing until the remainder is 0.

The decimal equivalent of  $\frac{5}{16}$  is 0.3125.

**B**  $\frac{13}{33}$

Divide 13 by 33.  
Add a zero after the decimal point.  
Subtract 99 from 130.  
Use the grid to help you complete the long division.

		0.	3	9	3	9	
33	)	13.	0	0	0	0	
		-9	9				
			3	1	0		
			-2	9	7		
				1	3	0	
				-9	9		
					3	1	0
					-2	9	7
						1	3

0. $\overline{39}$

**A** You can stop dividing once you discover a repeating pattern in the quotient.

Write the quotient with its repeating pattern and indicate that the repeating numbers continue.

The decimal equivalent of  $\frac{13}{33}$  is 0.3939..., or  $0.\overline{39}$ .

Sep 10-3:47 PM

**YOUR TURN**

pg. 551

Write each rational number as a decimal.

4.  $\frac{4}{7} = 0.571428\dots$

$0.571428$

5.  $\frac{1}{3} = 0.333\dots$

$0.333$   
 $3 \overline{) 1.000}$   
 $\underline{- 9}$   
 $10$   
 $\underline{- 9}$   
 $10$   
 $\underline{- 9}$   
 $10$   
 $\underline{- 9}$   
 $10$

6.  $\frac{9}{20} = 0.45$

$0.45$   
 $20 \overline{) 9.00}$   
 $\underline{- 80}$   
 $100$   
 $\underline{- 100}$   
 $0$

Sep 10-3:52 PM

**Writing Mixed Numbers as Decimals**

You can convert a mixed number to a decimal by rewriting the fractional part of the number as a decimal.

**EXAMPLE 2**



FL 7.NS.1.2d

Shawn rode his bike  $6\frac{3}{4}$  miles to the science museum. Write  $6\frac{3}{4}$  as a decimal.

**STEP 1** Rewrite the fractional part of the number as a decimal.

$0.75$   
 $4 \overline{) 3.00}$   
 $\underline{- 28}$   
 $20$   
 $\underline{- 20}$   
 $0$

Divide the numerator by the denominator.



$6\frac{3}{4}$  mi



**STEP 2** Rewrite the mixed number as the sum of the whole part and the decimal part.

$6\frac{3}{4} = 6 + \frac{3}{4}$   
 $= 6 + 0.75$   
 $= 6.75$

Sep 10-3:54 PM

**YOUR TURN**

7. Yvonne made  $2\frac{3}{4}$  quarts of punch. Write  $2\frac{3}{4}$  as a decimal.  $2\frac{3}{4} = \underline{2.75}$

Is the decimal equivalent a terminating or repeating decimal

8. Yvonne bought a watermelon that weighed  $7\frac{1}{3}$  pounds. Write  $7\frac{1}{3}$  as a decimal.  $7\frac{1}{3} = \underline{7.333\dots}$   $7.\bar{3}$

Is the decimal equivalent a terminating or repeating decimal?

Sep 10-3:55 PM

Homework

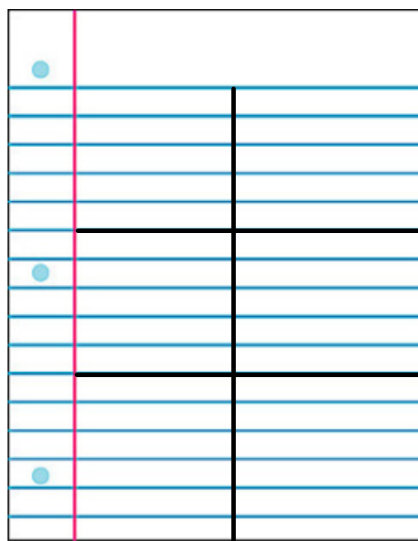
Textbook page 552

1 - 15 odd, 16 - 18

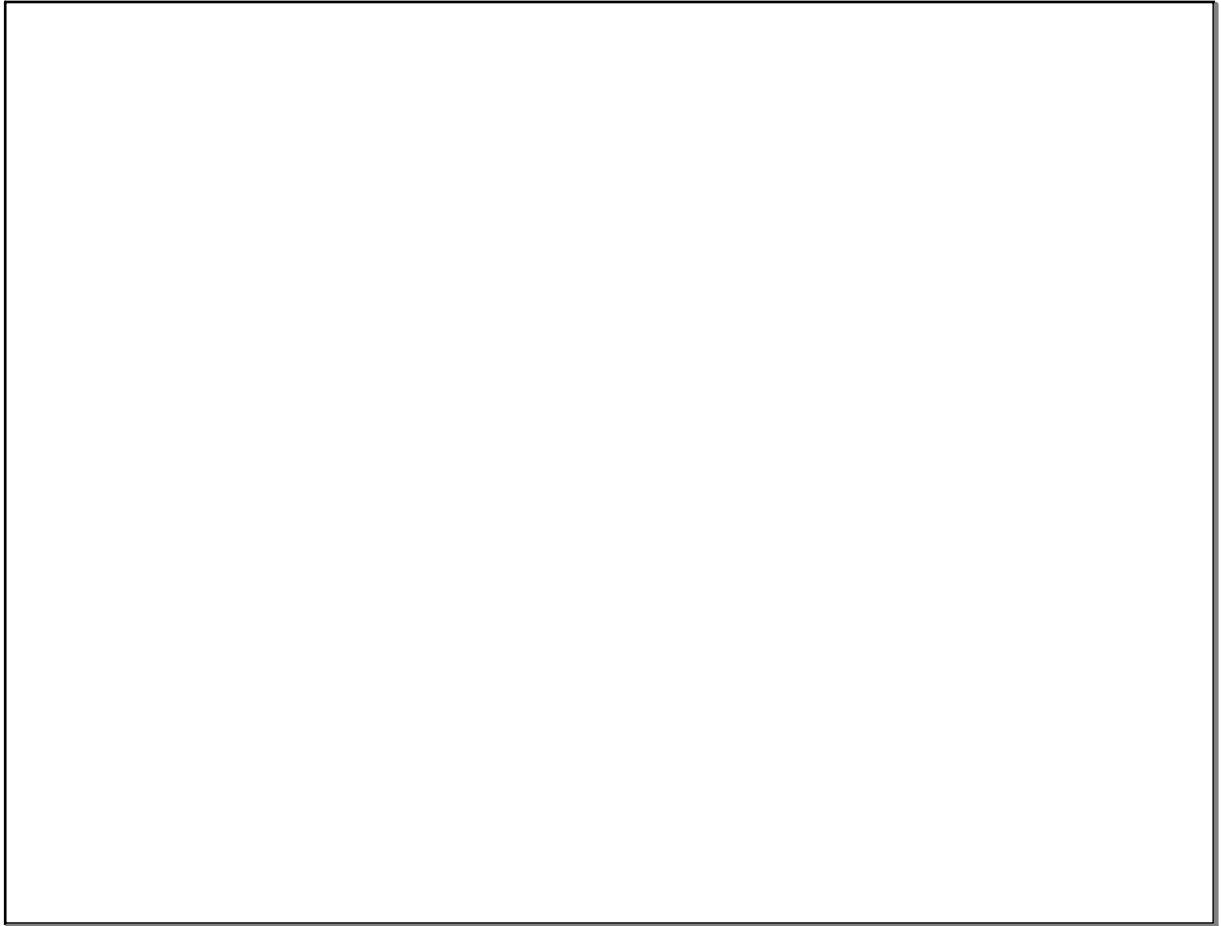
11 Problems

*← spiral/comp notebook*

ALL WORK MUST BE DONE ON SEPARATE PAPER SET UP AS SHOWN BELOW,  
which means you need 11 boxes.



Sep 10-3:58 PM



Sep 11-2:36 PM