



Lesson 2.1 Rational Numbers

Learning Targets:

- Identify Rational Numbers
- Identify Terminating and Repeating Decimals
- Write Rational Numbers as Decimals
- Write Decimals as Fractions
- Order Rational Numbers on a Number Line

$\frac{1}{8}$

-1.4

$-\frac{3}{7}$
 $-\frac{3}{4}$

Rational Numbers

$14\frac{2}{9}$

0.25

13.8

-40.02

Integers

-106

-2

15

+7

Whole Numbers

8

0

100

Writing Rational Numbers as Decimals

Write $\frac{5}{11}$ as a decimal.

$$\begin{array}{r} 0.4545 \\ 11 \overline{) 5.0000} \\ \underline{44} \\ 60 \\ \underline{55} \\ 50 \\ \underline{44} \\ 60 \\ \underline{55} \\ 50 \end{array}$$

Repeating
Decimal

$$0.\overline{45}$$

$$\begin{array}{r} 45 \\ 11 \overline{) 45} \\ \underline{44} \\ 10 \\ \underline{9} \\ 10 \\ \underline{9} \\ 10 \end{array}$$

Write $\frac{12}{5}$ as a decimal

$$\begin{array}{r} 2.4 \\ 5 \overline{) 12.0} \\ \underline{10} \\ 20 \\ \underline{20} \\ 0 \end{array}$$

Terminating
Decimal

Writing Rational Numbers as Decimals

Write $-2\frac{1}{4}$ as a decimal.

$$- \frac{9}{4}$$

$$\begin{array}{r} 2.25 \\ 4 \overline{) 9.00} \\ \underline{8} \\ 10 \\ \underline{8} \\ 20 \\ \underline{20} \\ 0 \end{array}$$

$$[-2.25]$$

Write $-2\frac{1}{4}$ as a decimal.

$\frac{1}{4} \rightarrow$ decimal

$$-2.25$$

Writing a Decimal as a Fraction

Write -0.26 as a fraction in simplest form.

-0.26

$-0.26 =$

$$-\frac{26}{100}$$

$$\begin{array}{l} \div 2 \\ \hline \div 2 \end{array}$$

$$-\frac{13}{50}$$

Place \uparrow hundredths
Value

0.8

$$\frac{8}{10}$$

0.74

$$\frac{74}{100}$$

0.136

$$\frac{136}{1000}$$

Do these in your notebook

Write the decimal as a fraction or a mixed number in simplest form.

5. -0.7

$$-\frac{7}{10}$$

6. 0.125

$$\frac{125}{1000}$$

$$\frac{1}{8}$$

7. -3.1

$$-\frac{31}{10}$$

$$-3\frac{1}{10}$$

$$-3\frac{1}{10}$$

8. -10.25

$$-10\frac{25}{100}$$

$$-10\frac{1}{4}$$

Ordering Rational Numbers

Creature	Elevation (kilometers)
Anglerfish	$-\frac{13}{10}$ ✓
Squid	$-2\frac{1}{5}$ ✓
Shark	$-\frac{2}{11}$
Whale	-0.8

The table shows the elevations of four sea creatures relative to sea level. Which of the sea creatures are deeper than the whale? Explain.

Write each rational number as a decimal.

$$\begin{array}{l}
 -1.3 \\
 -2.2 \\
 -0.\overline{18}
 \end{array}$$

$$\begin{array}{r}
 0.\overline{18} \\
 \hline
 11 \overline{) 2.000} \\
 \underline{11} \\
 90
 \end{array}$$



Squid, Anglerfish, whale, shark $\frac{88}{20}$

Homework

pg 48 and 49

#1-10 all

#15-23 odd

#31, § 35 and 43-45

