

## Section 1.1 Focus Exercises

1. Find the absolute value of each number, as indicated.

a)  $|12| =$

b)  $|0| =$

c)  $|-9| =$

d)  $\left|-\frac{3}{5}\right| =$

e)  $|-2.5| =$

f)  $|\sqrt{10}| =$

2. Write each decimal number as a fraction, thereby making it a rational number. Simplify the fraction completely.

a)  $.03 =$

b)  $7.5 =$

c)  $-0.105 =$

3. Write each repeating decimal as a fraction; reduce the fraction if possible.

a)  $.8888888\dots$

b)  $.\overline{45}$

c)  $.\overline{216}$

d)  $.72727272\dots$

e)  $.\overline{06}$

f)  $.540540540\dots$

4. Decide whether each number is rational or not. *State why it is or is not.*

a)  $-\frac{4}{5}$

\_\_\_\_\_

b)  $\frac{0}{4}$

\_\_\_\_\_

c)  $2.031031031031\dots$

\_\_\_\_\_

d)  $5.1929394959\dots$

\_\_\_\_\_

e)  $0.590143776$

\_\_\_\_\_

5. Decide into which category or set of the real numbers each fits. Put a check mark in the box(es) that describe that number. Check all that apply.

		Natural	Whole	Integer	Rational	Irrational	Undefined	Real
a)	- 5	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b)	8.2395071...	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c)	$-\frac{6}{7}$	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d)	$\pi$	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e)	$\frac{2}{0}$	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f)	$\sqrt{3.14}$	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g)	$\frac{9}{3}$	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
h)	$\sqrt{6}$	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
i)	$\frac{0}{3}$	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
j)	$-\sqrt{25}$	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>