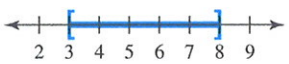
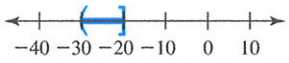
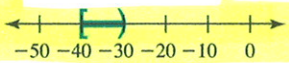
Miscellaneous

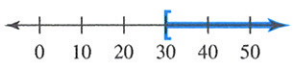
Write the interval notation for the interval of real numbers shown in each graph.

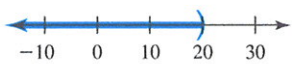
97.


98.


99.


100.


101.


102.


True or false? Explain your answer.

103. If we add the absolute values of -3 and -5, we get 8.

104. If we multiply the absolute values of -2 and 5, we get 10.

105. The absolute value of any negative number is greater than 0.

106. The absolute value of any positive number is less than 0.

107. The absolute value of -9 is larger than the absolute value of 6.

108. The absolute value of 12 is larger than the absolute value of -11.

Getting More Involved

109. *Exploration*

a) Find a rational number between $\frac{1}{3}$ and $\frac{1}{4}$.

b) Find a rational number between -3.205 and -3.114.

c) Find a rational number between $\frac{2}{3}$ and 0.6667.

d) Explain how to find a rational number between any two given rational numbers.

110. *Discussion*

Suppose that a is a negative real number. Determine whether each of the following is positive or negative, and explain your answer.

a) $-a$ **b)** $|-a|$ **c)** $-|a|$ **d)** $-(-a)$ **e)** $-|-a|$

111. *Discussion*

Determine whether each number listed in the table below is a member of each set listed on the side of the table. For example, $\frac{1}{2}$ is a real number and a rational number. So check marks are placed in those two cells of the table.

	$\frac{1}{2}$	-2	π	$\sqrt{3}$	$\sqrt{9}$	6	0	$-\frac{7}{3}$
Real	✓							
Irrational								
Rational	✓							
Integer								
Whole								
Counting								

1.2 Fractions

In This Section

〈1〉 Equivalent Fractions
〈2〉 Multiplying Fractions
〈3〉 Unit Conversion
〈4〉 Dividing Fractions
〈5〉 Adding and Subtracting Fractions
〈6〉 Fractions, Decimals, and Percents
〈7〉 Applications

In this section and Sections 1.3 and 1.4 we will discuss operations performed with real numbers. We begin by reviewing operations with fractions. Note that this section on fractions is not an entire arithmetic course. We are simply reviewing selected fraction topics that will be used in this text.

〈1〉 Equivalent Fractions

A **fraction** is a rational number that is not an integer. The rational number $\frac{2}{3}$ is a fraction. If a pizza is cut into 3 equal pieces and you eat 2, you have eaten $\frac{2}{3}$ of the pizza. If the