REVIEW FRACTIONS
For help with writing fractions as decimals, see p. 916.

DECIMALS In decimal form, a rational number either terminates or repeats. For example, $\frac{3}{4} = 0.75$ is a *terminating decimal*, and $\frac{1}{3} = 0.333\ldots$ is a *repeating decimal*.

EXAMPLE 2 Classify numbers

Tell whether each of the following numbers is a whole number, an integer, or a rational number: 5, 0.6, $-2\frac{2}{3}$, and -24.

JUSTIFY AN ANSWER
The number 0.6 is a rational number because it can be written as a quotient of two integers: $\frac{3}{5}$.

Number	Whole number?	Integer?	Rational number?
5	Yes	Yes	Yes
0.6	No	No	Yes
$-2\frac{2}{3}$	No	No	Yes
-24	No	Yes	Yes

EXAMPLE 3 Order rational numbers

ASTRONOMY A star's color index is a measure of the temperature of the star. The greater the color index, the cooler the star. Order the stars in the table from hottest to coolest.

Star	Rigel	Arneb	Denebola	Shaula
Color index	-0.03	0.21	0.09	-0.22

Solution

Begin by graphing the numbers on a number line.

Read the numbers from left to right: -0.22, -0.03, 0.09, 0.21.

▶ From hottest to coolest, the stars are Shaula, Rigel, Denebola, and Arneb.

✓ GUIDED PRACTICE for Examples 2 and 3

Tell whether each number in the list is a whole number, an integer, or a rational number. Then order the numbers from least to greatest.

4. 3, -1.2, -2, 0

5. 4.5, $-\frac{3}{4}$, -2.1, 0.5

6. 3.6, -1.5, -0.31, -2.8

7. $\frac{1}{6}$, 1.75, $-\frac{2}{3}$, 0