Assignment

Write

Explain how the three different fractional representations of a rational number are related to determining the sign of the quotient of two integers.

Remember

The sign of a negative rational number in fractional form can be placed in front of the fraction, in the numerator of the fraction, or in the denominator of the fraction.

Practice

Convert each fraction to a decimal. Classify the decimal as *terminating*, *non-terminating*, *repeating*, or *non-repeating*. If the decimal repeats, rewrite it using bar notation.

1. $\frac{3}{8}$
2. $\frac{5}{6}$
3. $\frac{7}{25}$
4. $\frac{2}{11}$
5. $\frac{5}{12}$

Write each rational number as an equivalent fraction by changing the placement of the negative sign(s).

6. $-\frac{4}{7}$
7. $\frac{-5}{3}$
8. $\frac{1}{2}$
9. $\frac{9}{-2}$
10. $-\frac{8}{5}$

Stretch

Use what you know about multiplying signed numbers to evaluate each expression.

1. $\left(-\frac{1}{2}\right)^2$
2. $-\left(\frac{1}{2}\right)^2$
3. $\left(-\frac{1}{2}\right)^3$
4. $-\left(\frac{1}{2}\right)^3$

What do you notice?

Review

Represent each scenario as a multiplication or division problem. Then, solve the problem.

1. The temperature changed $-2°$ per hour for 5 hours. How many degrees did the temperature drop during that time period.
2. Lina missed 8 questions on her science final, which changed her final score by -32 points. If each question is weighted equally, how many points did she lose for each question?

Determine each product.

3. $2\frac{1}{2} \times \left(-3\frac{3}{4}\right)$
4. $-5\frac{1}{3} \times \left(-2\frac{1}{2}\right)$

Determine an 18% gratuity for each restaurant bill.

5. \$29.50
6. \$56.70