

Operations with Rational Numbers

7th Grade

Negative fractions and decimals — convert to one form, then apply the sign rule.

Sign rules for rationals are identical to those for integers. The extra work is converting between fractions and decimals first.

$$-3/4 = -0.75$$

$$-3/4 + 1/2$$

$$-1/4$$

Common denominator: $-3/4 + 2/4$.

$$(-0.5) \times (-2.4)$$

$$1.2$$

Different forms? Convert first. Two negatives give positive.

$$3/8 \text{ as a decimal}$$

$$0.375$$

Divide 3 by 8.

$$-2/5 \div 4$$

$$-1/10$$

Keep, change, flip: $-2/5 \times 1/4$.

A rational number is anything that can be written as a fraction of two integers. That includes every terminating and repeating decimal.