

Dividing Fractions Using Common Denominators

Find a common denominator and convert each fraction to its equivalent value

$$\frac{4}{5} \div \frac{2}{3} = \frac{12}{15} \div \frac{10}{15}$$

Since the denominators are now the same we can divide the numerators

$$\frac{12}{15} \div \frac{10}{15} = \frac{12}{10}$$

Simplify the fraction

$$\frac{12}{10} = 1\frac{1}{5}$$

Example – I Do

• How many $\frac{1}{2}$ s are in 7?

$$7 \div \frac{1}{2} = \frac{7}{1} \div \frac{1}{2} =$$

Step 1 Find the common denominator: $\frac{7}{1} \div \frac{1}{2} = \frac{14}{2} \div \frac{1}{2}$

Step 2 Divide the numerators: $\frac{14}{2} \div \frac{1}{2} = \frac{14}{1}$

Step 3 Simplify: $\frac{14}{1} = 14$

Example – We Do

• What is $\frac{1}{2}$ divided by $\frac{1}{3}$?

$$\frac{1}{2} \div \frac{1}{3} =$$

Example – You Do

• What is $\frac{3}{7}$ divided by $\frac{2}{3}$?

$$\frac{3}{7} \div \frac{2}{3} =$$

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Use your understanding of integer rules and multiplication and division of fractions to solve the problems below.

FRACTIONS

If the signs are the , the product/quotient is .

$$\frac{3}{5} \cdot \frac{2}{3}$$

$$-\frac{5}{6} \cdot -\frac{3}{4}$$

$$-\frac{3}{10} \div -\frac{4}{5}$$

$$1\frac{3}{8} \div \frac{1}{8}$$

If the signs are , the product/quotient is .

$$-\frac{2}{3} \div \frac{1}{2}$$

$$2\frac{1}{2} \cdot -\frac{3}{4}$$

$$-\frac{8}{9} \div -\frac{4}{9}$$

$$-\frac{7}{10} \cdot \frac{1}{4}$$

Let's take a Splash in the Past

- A temperature of 10°F along with a 15 mile per hour wind causes a wind chill of minus 18. How could you represent the wind chill using an integer?
- Which of the following lists is in order from *least* to *greatest*?
 - A $-50, -38, -19, -5, -4$
 - B $-25, -56, 48, -21, 1$
 - C $-65, -43, 31, -13, -2$
 - D $-1, -15, -68, -37, -52$

The lowest point in the United States is in Death Valley, California, at 282 feet below sea level. The highest point in Florida is in Britton Hill, at 345 feet above sea level. Which statement describes the difference in the elevations of the lowest point in the United States and the highest point in Florida?

- A. The elevation of the lowest point in the United States is 63 feet lower than the elevation of the highest point in Florida.
- B. The elevation of the lowest point in the United States is 282 feet lower than the elevation of the highest point in Florida.
- C. The elevation of the lowest point in the United States is 345 feet lower than the elevation of the highest point in Florida.
- D. The elevation of the lowest point in the United States is 627 feet lower than the elevation of the highest point in Florida.

The temperature at Frozen Lake, Colorado, dropped to -6°F last night. Select all values that represent the opposite of this temperature. Pick up to 2 answers.

A. 6

B. (-6)

C. $-(6)$

D. $-(-6)$