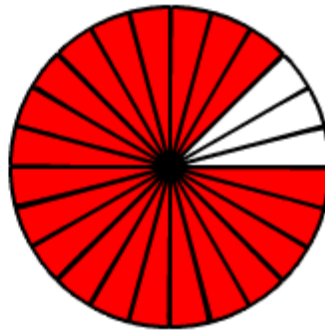


# RENAME TO LOWER TERMS

Introducing:

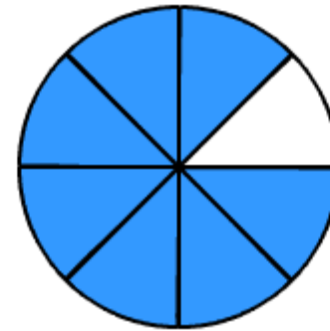
- lower terms
- lowest terms
- identity

$$\frac{21}{24}$$



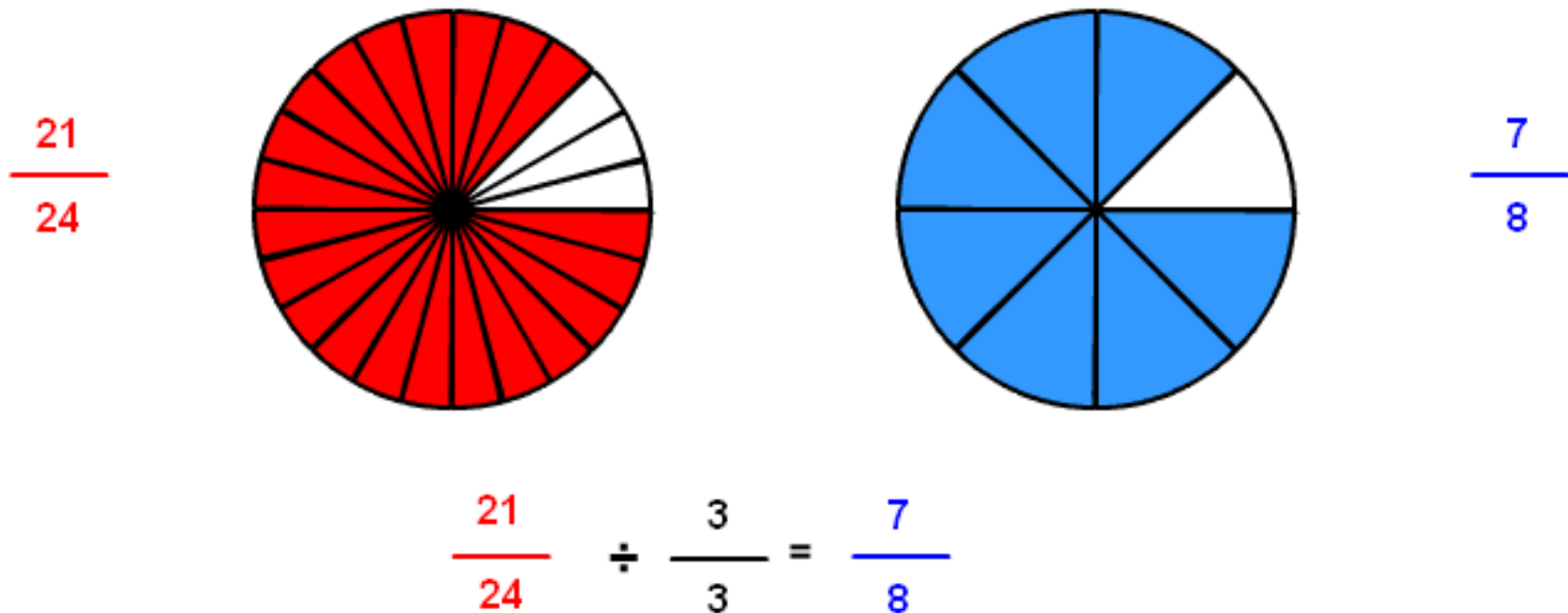
$$\frac{21}{24}$$

$$= \frac{7}{8}$$



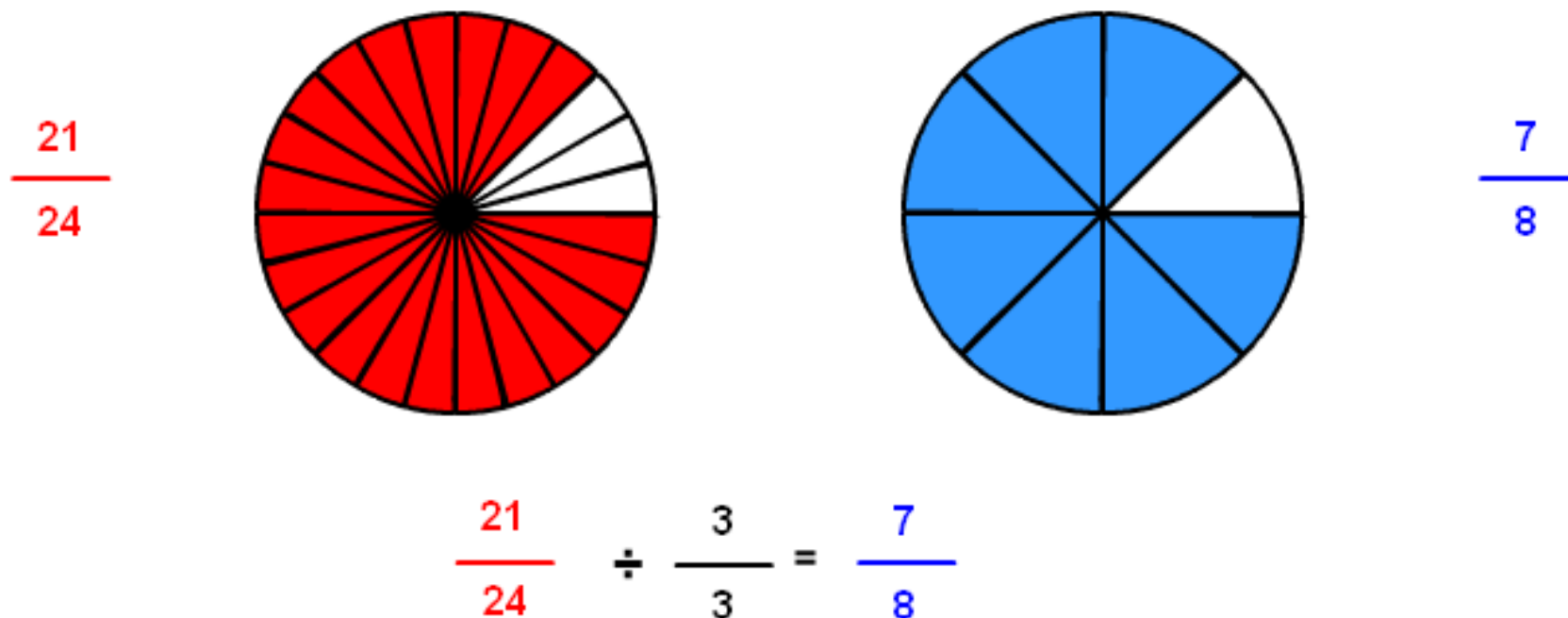
$$\frac{7}{8}$$

# Rename To Lower Terms 1



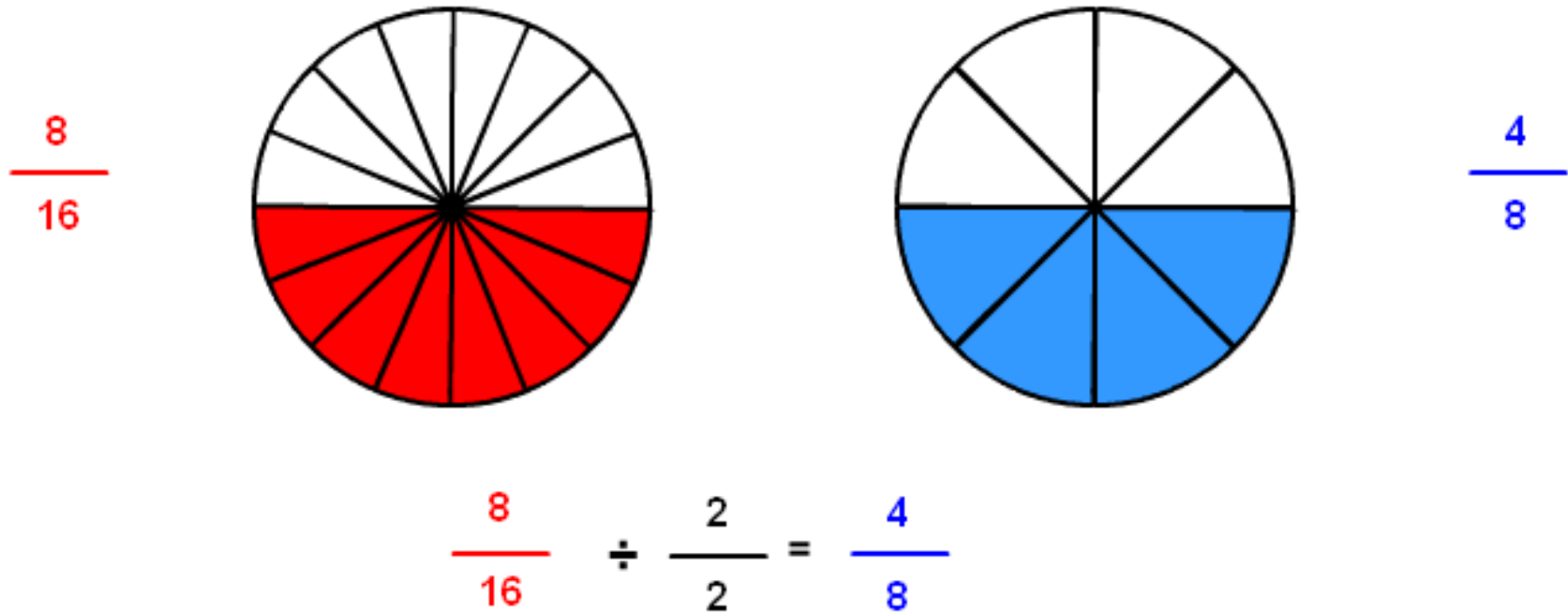
These fractions are the same size. The fraction on the right is in *lower terms* because both the numerator and denominator are smaller than the fraction on the left.

# Rename To Lower Terms 2



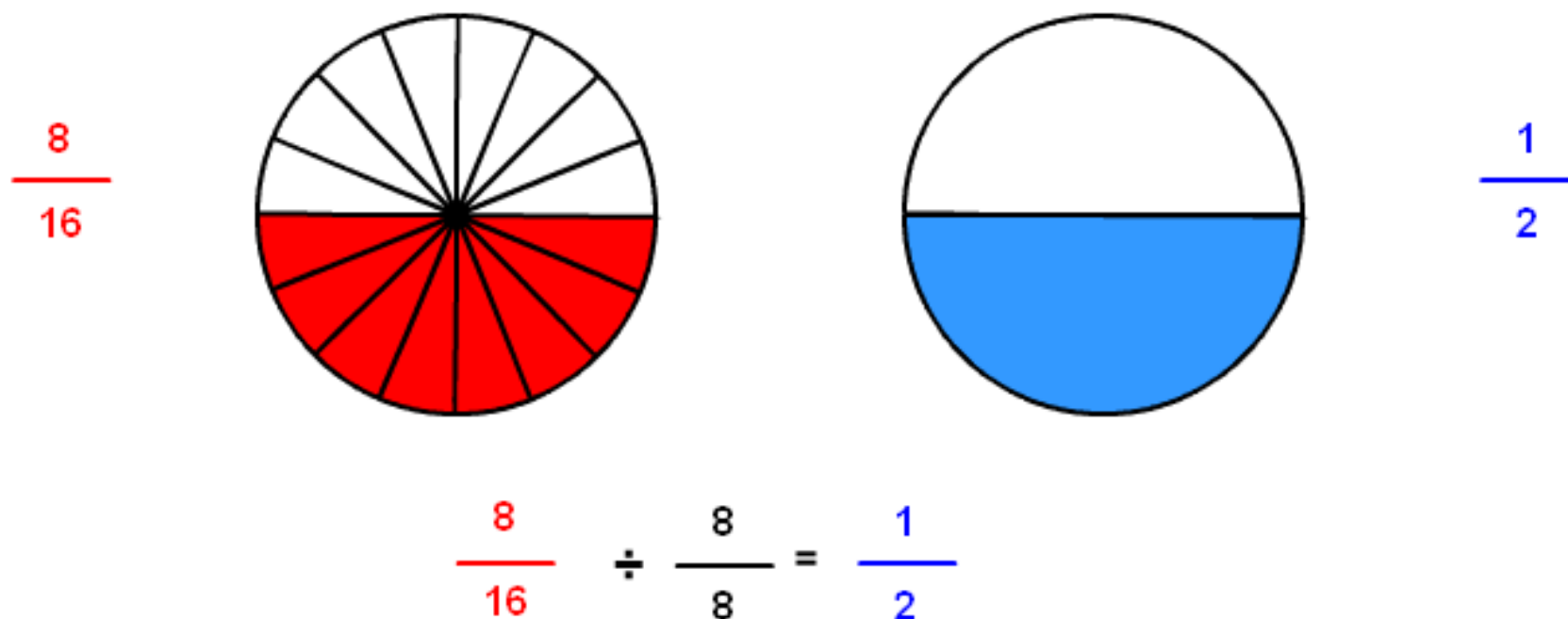
Notice that both the numerator and denominator in the fraction  $\frac{21}{24}$  are divided by 3. Actually, you are dividing the fraction  $\frac{21}{24}$  by  $\frac{3}{3}$ , a form of 1.

# Rename To Lower Terms 3



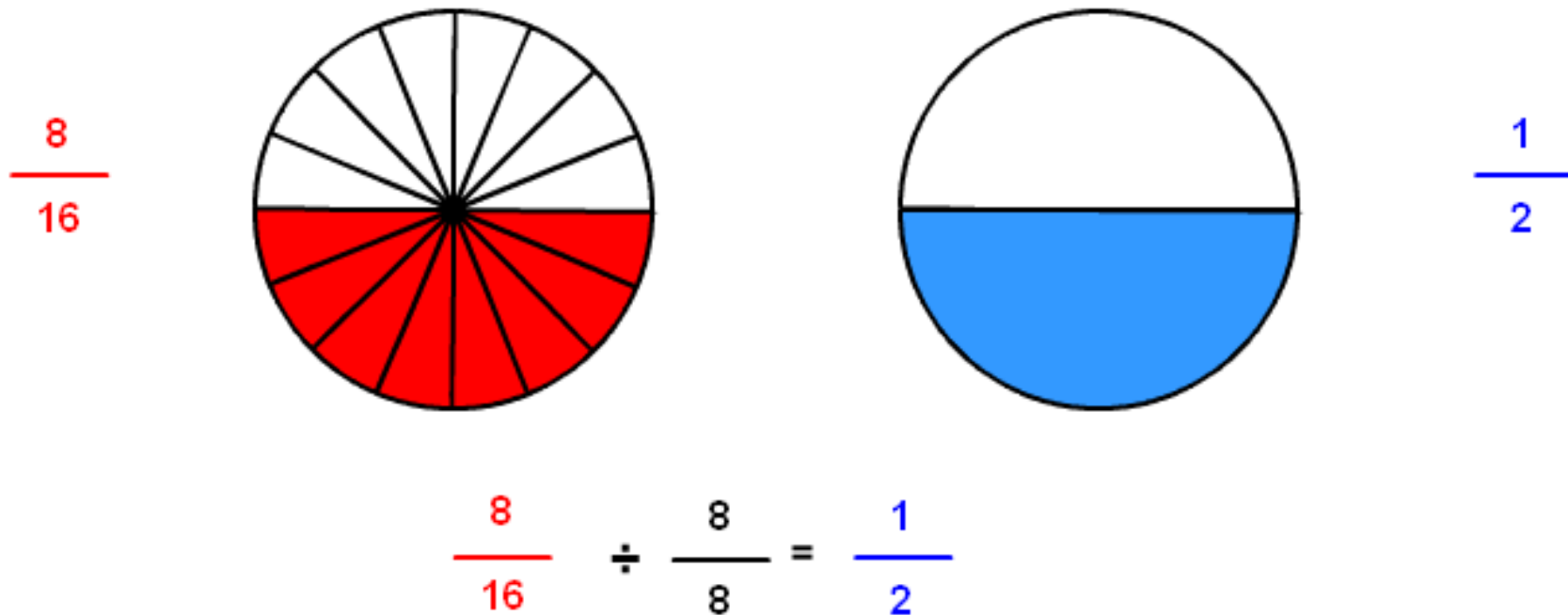
The picture shows that 8 and 16 are both divided by 2. A number that divides evenly into other numbers is called a *common factor* of the numbers. Two is a *common factor* of 8 and 16.

# Rename To Lower Terms 4



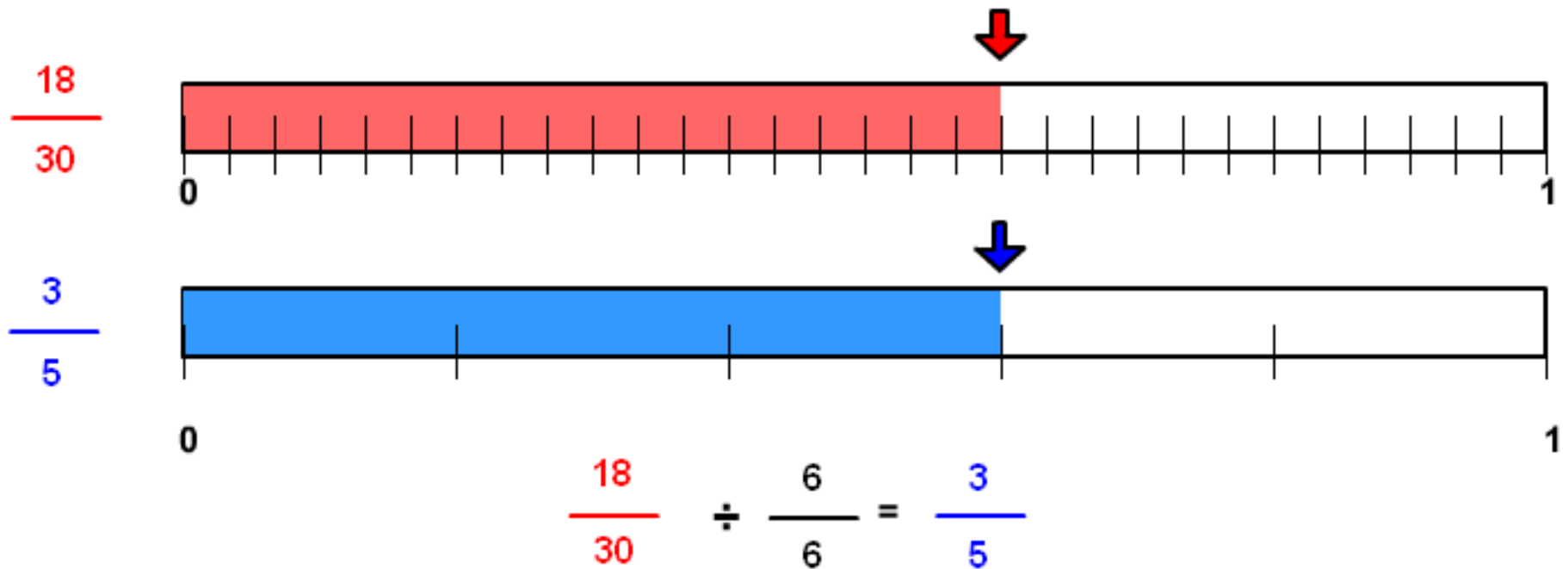
The numerator and denominator  $\frac{8}{16}$  can also be divided by 8. Eight is the largest number that divides evenly into 8 and 16. 2, 4, and 8 are *common factors* of 8 and 16, but 8 is the *greatest common factor* of 8 and 16.

# Rename To Lower Terms 5



Dividing the numerator and denominator by the *greatest common factor* will rename the fraction to *lowest terms*. The fraction  $\frac{1}{2}$  is in *lowest terms* because no number larger than 1 will divide evenly into 1 and 2.

# Rename To Lower Terms 6



This picture shows the fraction  $\frac{18}{30}$ . The *greatest common factor* of 18 and 30 is 6. Divide both 18 and 30 by the greatest common factor 6 will rename  $\frac{18}{30}$  in *lowest terms*.

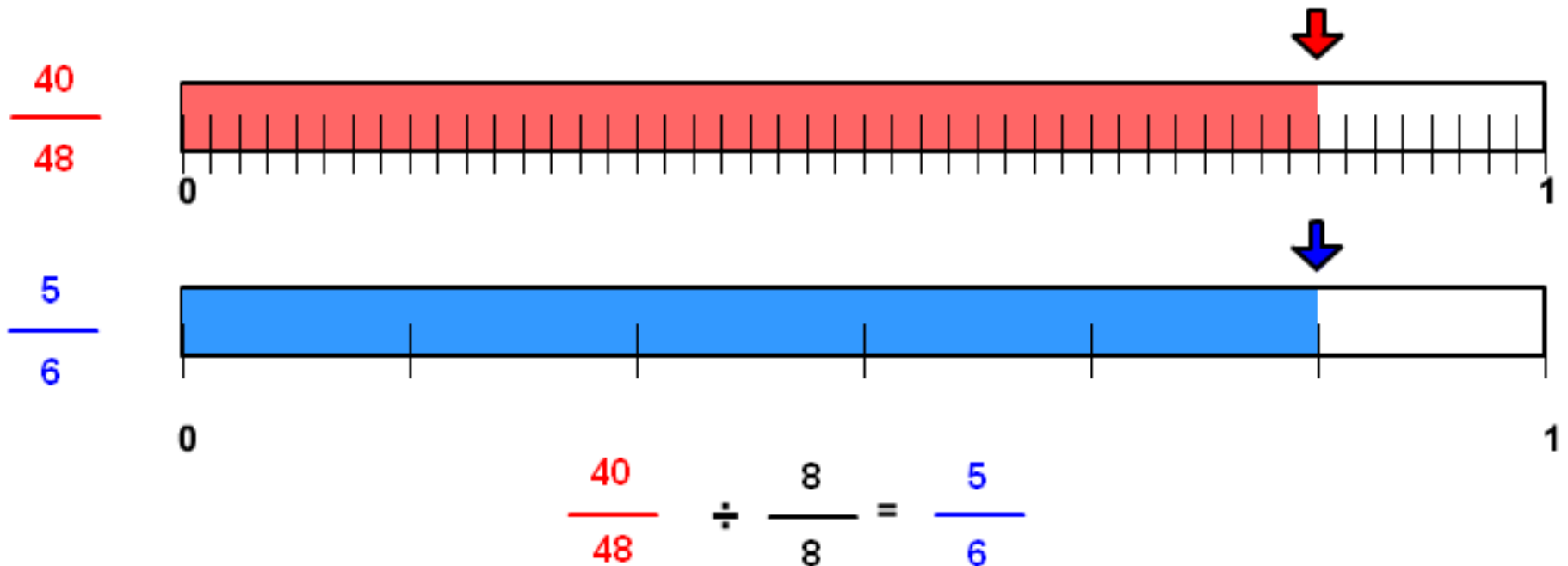
# Rename To Lower Terms 7

$$\frac{40}{48} = ?$$

What is  $\frac{40}{48}$  in lowest terms? Think of the largest number that will divide evenly into both 40 and 48. Then divide by that number.



# Rename To Lower Terms 8



The *greatest common factor* of  $\frac{40}{48}$  is 8. Divide both 40 and 48 by 8 and you arrive at  $\frac{5}{6}$ .

The fraction  $\frac{40}{48}$  is  $\frac{5}{6}$  in *lowest terms*.

Notice that  $\frac{40}{48}$  and  $\frac{5}{6}$  are the same size.