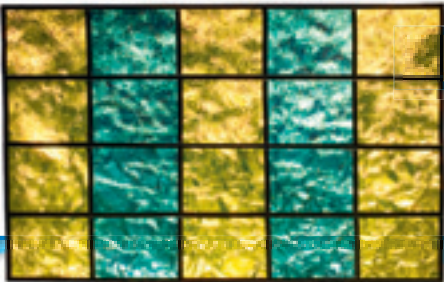


Fractions in Simplest Form

How can you write a fraction in simplest form?

A stained glass window has 20 panes. Out of 20 sections, 12 are yellow. So $\frac{12}{20}$ of the panes are yellow. Notice how the picture also shows that $\frac{3}{5}$ are yellow.



A fraction is in **simplest form** when its numerator and denominator have no common factor other than 1.

To write $\frac{12}{20}$ in simplest form, find a common factor of the numerator and the denominator. Since 12 and 20 are even numbers, they have 2 as a factor.

Divide both 12 and 20 by 2.

$$\frac{12 \div 2}{20 \div 2} = \frac{6}{10}$$

Both 6 and 10 are even. Divide both by 2.

$$\frac{6 \div 2}{10 \div 2} = \frac{3}{5}$$

Since 3 and 5 have no common factor other than 1, $\frac{3}{5}$ is in simplest form.

- Look at the window a different way. How many strips of yellow are in the window?
- How many strips are there in all?

- What are the factors of 12?
- What are the factors of 20?
- What are their common factors?
- Can you also divide $\frac{12}{20}$ by $\frac{4}{4}$?
- How do you know?