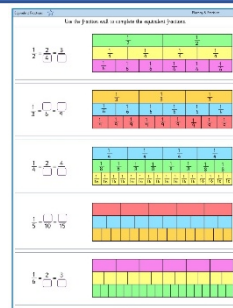


## ★ Equivalent Fractions

Children use proportional reasoning to link pictorial images with abstract methods to find equivalent fractions. They look at the links between equivalent fractions to find missing numerators and denominators. They look for patterns between the numerators and denominators to support their understanding of why fractions are equivalent.

On this sheet, they will use a fraction wall with completed fractions to complete two equivalent fractions.

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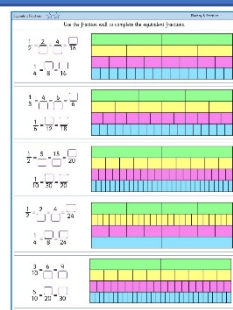


## ★★ Equivalent Fractions

Children use proportional reasoning to link pictorial images with abstract methods to find equivalent fractions. They look at the links between equivalent fractions to find missing numerators and denominators. They look for patterns between the numerators and denominators to support their understanding of why fractions are equivalent.

On this sheet, they will use fraction walls which have not been completed to complete different equivalent fractions.

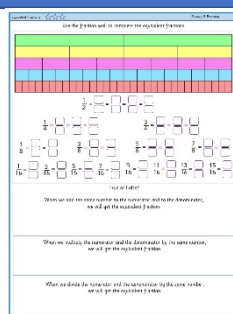
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## ★★★ Equivalent Fractions

On this sheet, children will complete equivalent fractions using one fraction wall and answer the true or false questions.

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## Reasoning & Problem Solving

### Equivalent Fractions

Children continue working on their understanding of equivalent fractions.

They will solve reasoning questions with fraction walls.

#### Equivalent Fractions

Zach draws the fraction wall and says,

$\frac{2}{6}$  is equivalent to  $\frac{4}{3}$

Is Zach correct?

Explain your reasons.

#### Reasoning & Problem Solving

TRUE or FALSE?

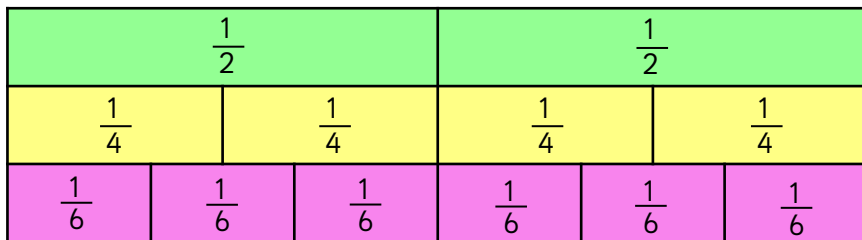
We can draw the fraction wall only if each next row of the wall has twice as many cells as previous row.

Each two equivalent fractions have numerators and denominators multiplied by the same number.

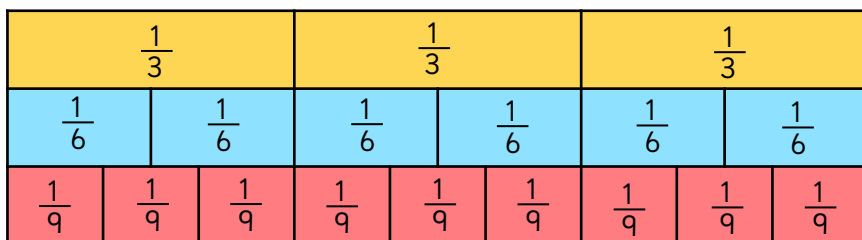


Use the fraction wall to complete the equivalent fractions.

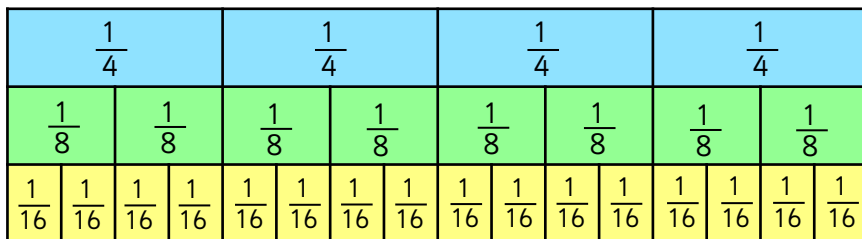
$$\frac{1}{2} = \frac{2}{\boxed{4}} = \frac{3}{\boxed{\phantom{00}}}$$



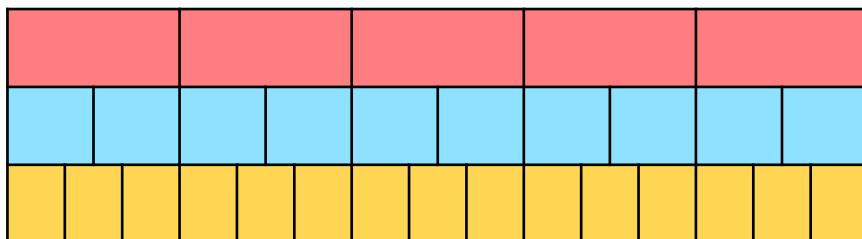
$$\frac{1}{3} = \frac{\boxed{\phantom{00}}}{6} = \frac{\boxed{\phantom{00}}}{9}$$



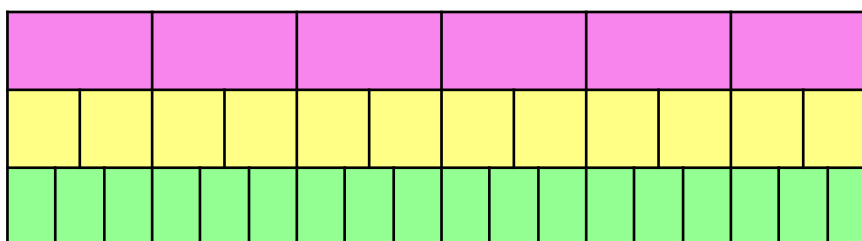
$$\frac{1}{4} = \frac{2}{\boxed{\phantom{00}}} = \frac{4}{\boxed{\phantom{00}}}$$



$$\frac{1}{5} = \frac{\boxed{\phantom{00}}}{10} = \frac{\boxed{\phantom{00}}}{15}$$



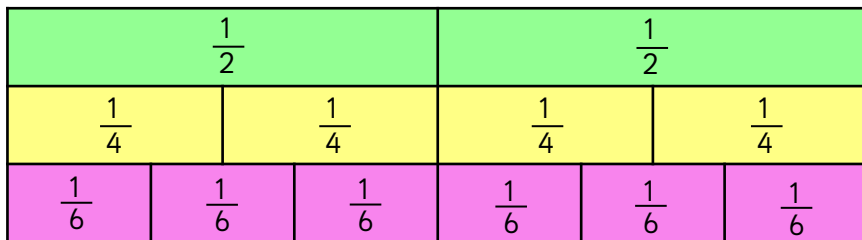
$$\frac{1}{6} = \frac{2}{\boxed{\phantom{00}}} = \frac{3}{\boxed{\phantom{00}}}$$



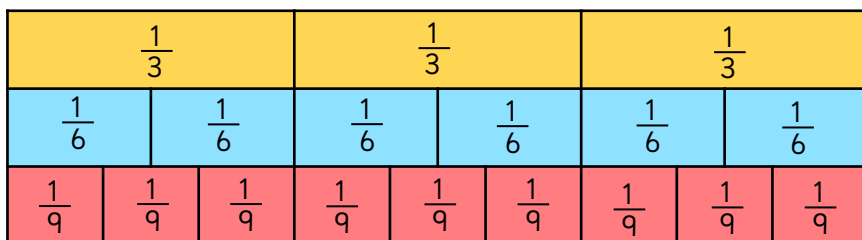


Use the fraction wall to complete the equivalent fractions.

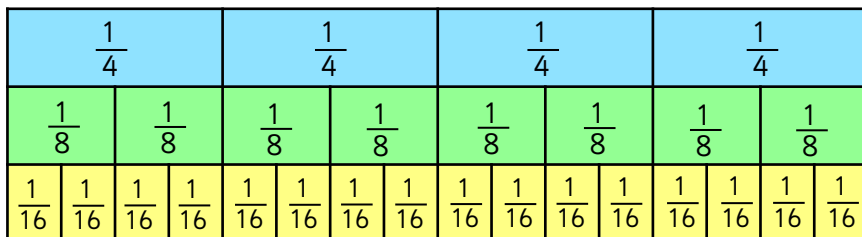
$$\frac{1}{2} = \frac{2}{4} = \frac{3}{6}$$



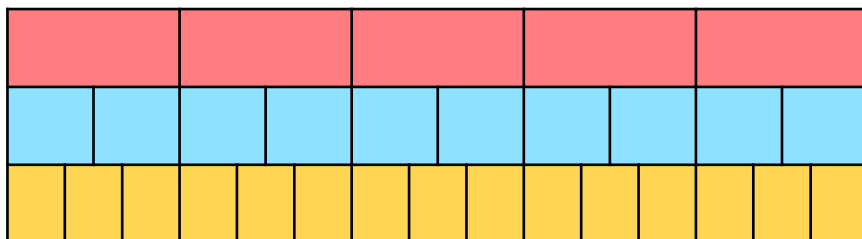
$$\frac{1}{3} = \frac{2}{6} = \frac{3}{9}$$



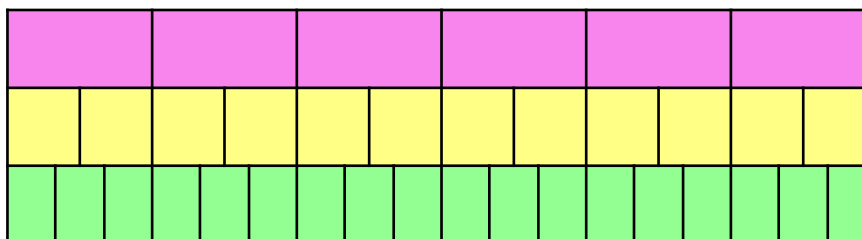
$$\frac{1}{4} = \frac{2}{8} = \frac{4}{16}$$



$$\frac{1}{5} = \frac{2}{10} = \frac{3}{15}$$



$$\frac{1}{6} = \frac{2}{12} = \frac{3}{18}$$

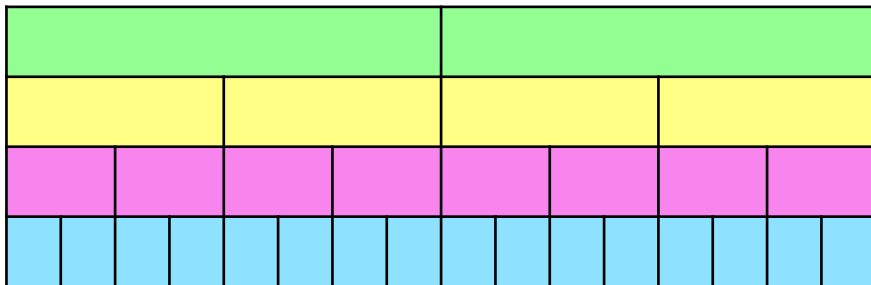




Use the fraction wall to complete the equivalent fractions.

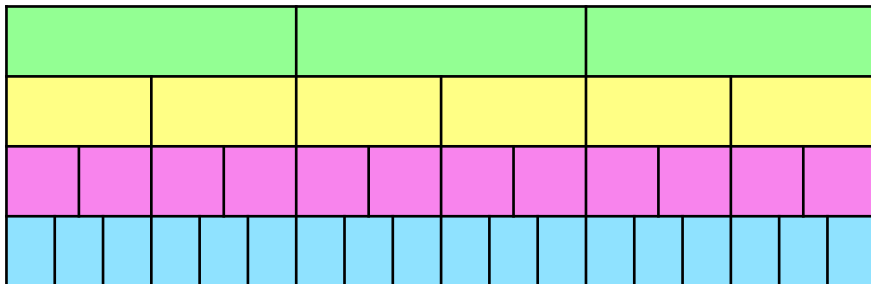
$$\frac{1}{2} = \frac{2}{\square} = \frac{4}{\square} = \frac{\square}{16}$$

$$\frac{1}{4} = \frac{\square}{8} = \frac{\square}{16}$$



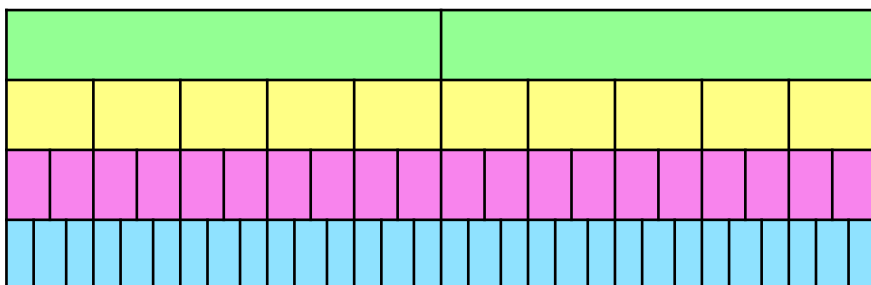
$$\frac{1}{3} = \frac{4}{\square} = \frac{6}{\square} = \frac{\square}{6}$$

$$\frac{1}{6} = \frac{\square}{12} = \frac{\square}{18}$$



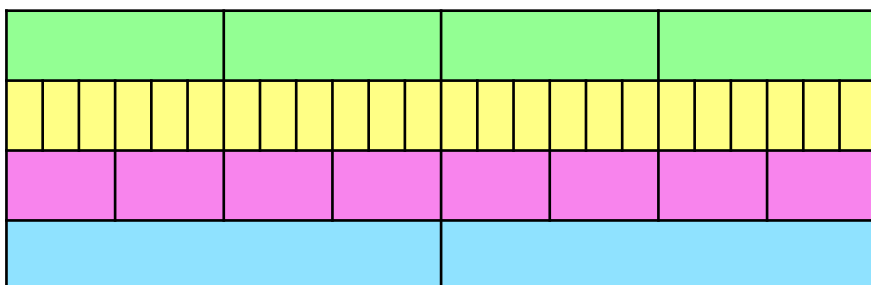
$$\frac{1}{2} = \frac{5}{\square} = \frac{15}{\square} = \frac{\square}{20}$$

$$\frac{1}{10} = \frac{\square}{30} = \frac{\square}{20}$$



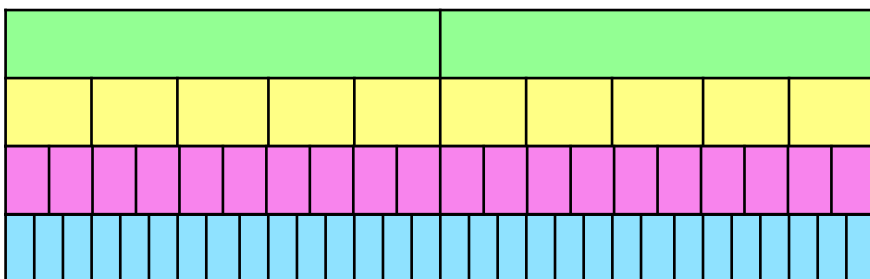
$$\frac{1}{2} = \frac{2}{\square} = \frac{4}{\square} = \frac{\square}{24}$$

$$\frac{1}{4} = \frac{\square}{8} = \frac{\square}{24}$$



$$\frac{3}{10} = \frac{6}{\square} = \frac{9}{\square}$$

$$\frac{6}{10} = \frac{\square}{20} = \frac{\square}{30}$$

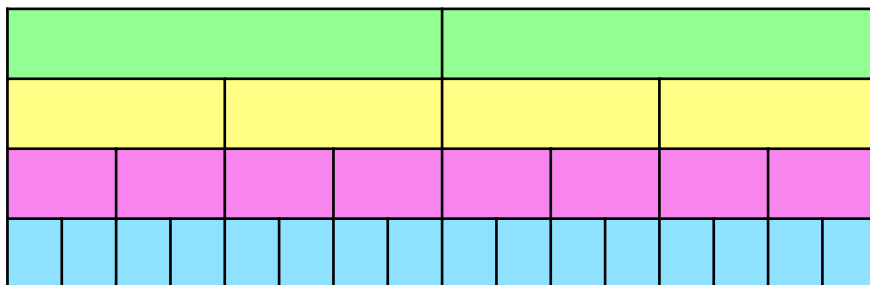




Use the fraction wall to complete the equivalent fractions.

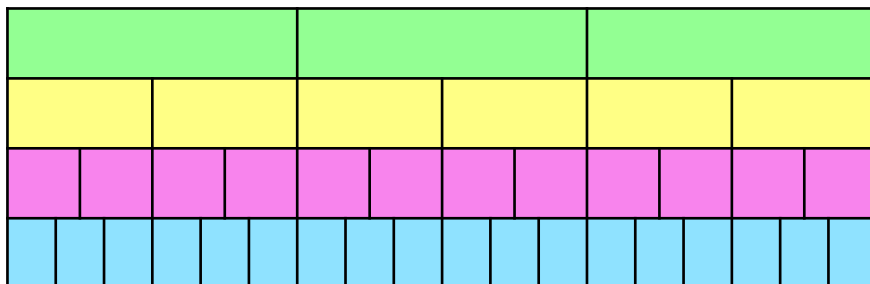
$$\frac{1}{2} = \frac{2}{4} = \frac{4}{8} = \frac{8}{16}$$

$$\frac{1}{4} = \frac{2}{8} = \frac{4}{16}$$



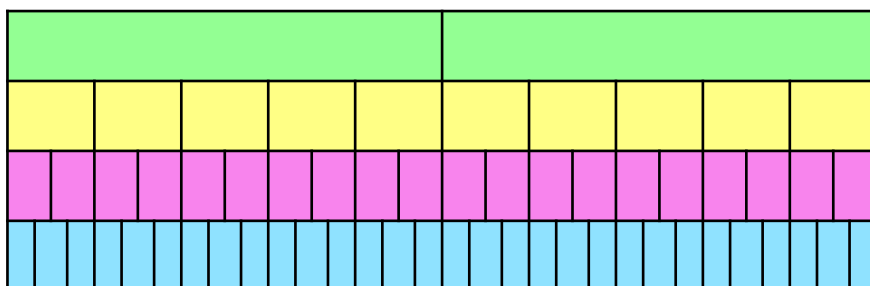
$$\frac{1}{3} = \frac{4}{12} = \frac{6}{18} = \frac{2}{6}$$

$$\frac{1}{6} = \frac{2}{12} = \frac{3}{18}$$



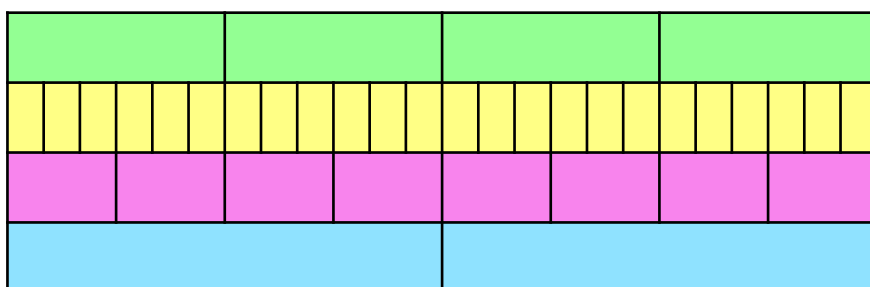
$$\frac{1}{2} = \frac{5}{10} = \frac{15}{30} = \frac{10}{20}$$

$$\frac{1}{10} = \frac{3}{30} = \frac{2}{20}$$



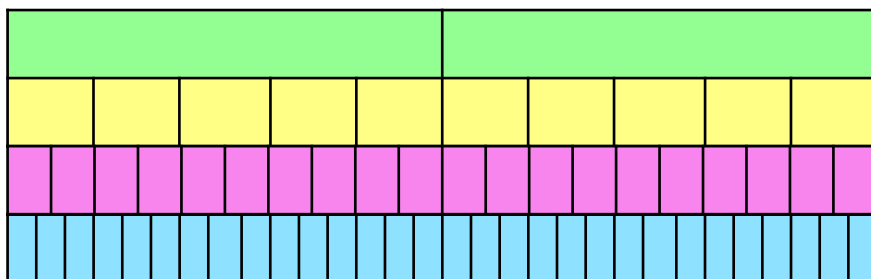
$$\frac{1}{2} = \frac{2}{4} = \frac{4}{8} = \frac{12}{24}$$

$$\frac{1}{4} = \frac{2}{8} = \frac{6}{24}$$



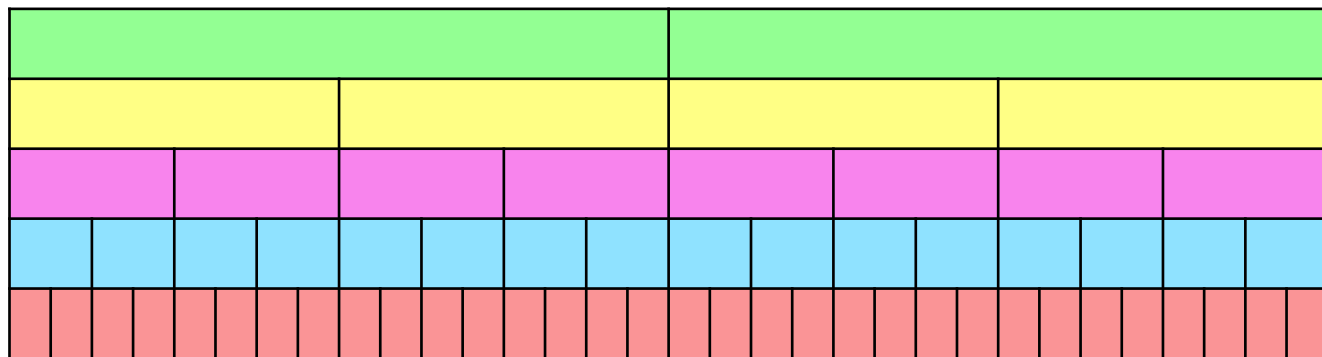
$$\frac{3}{10} = \frac{6}{20} = \frac{9}{30}$$

$$\frac{6}{10} = \frac{12}{20} = \frac{18}{30}$$





Use the fraction wall to complete the equivalent fractions.



$$\frac{1}{2} = \frac{\square}{\square} = \frac{\square}{\square} = \frac{\square}{\square} = \frac{\square}{\square}$$

$$\frac{1}{4} = \frac{\square}{\square} = \frac{\square}{\square} = \frac{\square}{\square}$$

$$\frac{3}{4} = \frac{\square}{\square} = \frac{\square}{\square} = \frac{\square}{\square}$$

$$\frac{1}{8} = \frac{\square}{\square} = \frac{\square}{\square}$$

$$\frac{3}{8} = \frac{\square}{\square} = \frac{\square}{\square}$$

$$\frac{5}{8} = \frac{\square}{\square} = \frac{\square}{\square}$$

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

$$\frac{1}{16} = \frac{\square}{\square}$$

$$\frac{3}{16} = \frac{\square}{\square}$$

$$\frac{5}{16} = \frac{\square}{\square}$$

$$\frac{7}{16} = \frac{\square}{\square}$$

$$\frac{9}{16} = \frac{\square}{\square}$$

$$\frac{11}{16} = \frac{\square}{\square}$$

$$\frac{13}{16} = \frac{\square}{\square}$$

$$\frac{15}{16} = \frac{\square}{\square}$$

True or False?

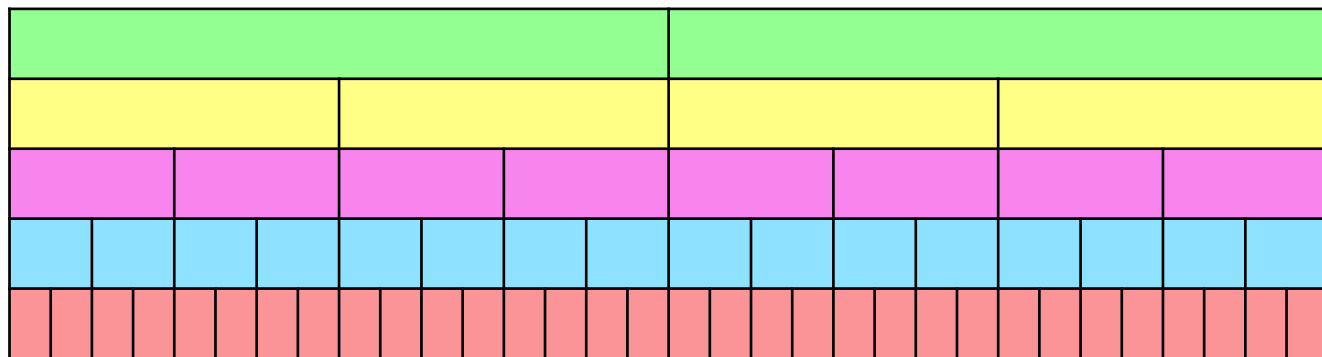
When we add the same number to the numerator and to the denominator,  
we will get the equivalent fraction.

When we multiply the numerator and the denominator by the same number,  
we will get the equivalent fraction.

When we divide the numerator and the denominator by the same number,  
we will get the equivalent fraction.



Use the fraction wall to complete the equivalent fractions.



$$\frac{1}{2} = \frac{2}{4} = \frac{4}{8} = \frac{8}{16} = \frac{16}{32}$$

$$\frac{1}{4} = \frac{2}{8} = \frac{4}{16} = \frac{8}{32}$$

$$\frac{3}{4} = \frac{6}{8} = \frac{12}{16} = \frac{24}{32}$$

$$\frac{1}{8} = \frac{2}{16} = \frac{4}{32}$$

$$\frac{3}{8} = \frac{6}{16} = \frac{12}{32}$$

$$\frac{5}{8} = \frac{10}{16} = \frac{20}{32}$$

$$\frac{7}{8} = \frac{14}{16} = \frac{28}{32}$$

$$\frac{1}{16} = \frac{2}{32}$$

$$\frac{3}{16} = \frac{6}{32}$$

$$\frac{5}{16} = \frac{10}{32}$$

$$\frac{7}{16} = \frac{14}{32}$$

$$\frac{9}{16} = \frac{18}{32}$$

$$\frac{11}{16} = \frac{22}{32}$$

$$\frac{13}{16} = \frac{26}{32}$$

$$\frac{15}{16} = \frac{30}{32}$$

True or False?

When we add the same number to the numerator and to the denominator, we will get the equivalent fraction.

This statement is false. For example, for the fraction  $\frac{1}{2}$ , if we add 3 to the numerator and to the denominator, then we get  $\frac{4}{5}$  that is not equivalent to the initial fraction.

When we multiply the numerator and the denominator by the same number, we will get the equivalent fraction.

This statement is always true. Children may use the fraction wall to prove this statement.

When we divide the numerator and the denominator by the same number, we will get the equivalent fraction.

This statement is always true. Children may use the fraction wall to prove this statement.

Zach draws the fraction wall and says,



$\frac{2}{6}$  is equivalent to  $\frac{4}{3}$

$\frac{1}{3}$	$\frac{1}{3}$	$\frac{1}{3}$	$\frac{1}{3}$	$\frac{1}{3}$	$\frac{1}{3}$	$\frac{1}{3}$	$\frac{1}{3}$	$\frac{1}{3}$	$\frac{1}{3}$	$\frac{1}{3}$	$\frac{1}{3}$
$\frac{1}{6}$	$\frac{1}{6}$	$\frac{1}{6}$	$\frac{1}{6}$	$\frac{1}{6}$	$\frac{1}{6}$	$\frac{1}{6}$	$\frac{1}{6}$	$\frac{1}{6}$	$\frac{1}{6}$	$\frac{1}{6}$	$\frac{1}{6}$

Is Zach correct?

Explain your reasons.

TRUE or FALSE?

We can draw the fraction wall only if each next row of the wall has twice as many cells as previous row.

Each two equivalent fractions have numerators and denominators multiplied by the same number.

Zach draws the fraction wall and says,



$\frac{2}{6}$  is equivalent to  $\frac{4}{3}$

$\frac{1}{3}$	$\frac{1}{3}$	$\frac{1}{3}$	$\frac{1}{3}$	$\frac{1}{3}$	$\frac{1}{3}$	$\frac{1}{3}$	$\frac{1}{3}$	$\frac{1}{3}$	$\frac{1}{3}$	$\frac{1}{3}$	$\frac{1}{3}$
$\frac{1}{6}$	$\frac{1}{6}$	$\frac{1}{6}$	$\frac{1}{6}$	$\frac{1}{6}$	$\frac{1}{6}$	$\frac{1}{6}$	$\frac{1}{6}$	$\frac{1}{6}$	$\frac{1}{6}$	$\frac{1}{6}$	$\frac{1}{6}$

Is Zach correct?

Explain your reasons.

TRUE or FALSE?

We can draw the fraction wall only if each next row of the wall has twice as many cells as previous row.

Each two equivalent fractions have numerators and denominators multiplied by the same number.



Zach draws the fraction wall and says,



$\frac{2}{6}$  is equivalent to  $\frac{4}{3}$

$\frac{1}{3}$	$\frac{1}{3}$	$\frac{1}{3}$	$\frac{1}{3}$	$\frac{1}{3}$	$\frac{1}{3}$	$\frac{1}{3}$	$\frac{1}{3}$	$\frac{1}{3}$	$\frac{1}{3}$	$\frac{1}{3}$	$\frac{1}{3}$
$\frac{1}{6}$	$\frac{1}{6}$	$\frac{1}{6}$	$\frac{1}{6}$	$\frac{1}{6}$	$\frac{1}{6}$	$\frac{1}{6}$	$\frac{1}{6}$	$\frac{1}{6}$	$\frac{1}{6}$	$\frac{1}{6}$	$\frac{1}{6}$

Is Zach correct?  
Explain your reasons.

**Zach is incorrect.**

He has drawn an incorrect fraction wall. The upper row of his wall should consist of  $\frac{1}{12}$ .

TRUE or FALSE?

We can draw the fraction wall only if each next row of the wall has twice as many cells as previous row.

**False**

Each two equivalent fractions have numerators and denominators multiplied by the same number.

**True**

Zach draws the fraction wall and says,



$\frac{2}{6}$  is equivalent to  $\frac{4}{3}$

$\frac{1}{3}$	$\frac{1}{3}$	$\frac{1}{3}$	$\frac{1}{3}$	$\frac{1}{3}$	$\frac{1}{3}$	$\frac{1}{3}$	$\frac{1}{3}$	$\frac{1}{3}$	$\frac{1}{3}$	$\frac{1}{3}$	$\frac{1}{3}$
$\frac{1}{6}$	$\frac{1}{6}$	$\frac{1}{6}$	$\frac{1}{6}$	$\frac{1}{6}$	$\frac{1}{6}$	$\frac{1}{6}$	$\frac{1}{6}$	$\frac{1}{6}$	$\frac{1}{6}$	$\frac{1}{6}$	$\frac{1}{6}$

Is Zach correct?  
Explain your reasons.

**Zach is incorrect.**

He has drawn an incorrect fraction wall. The upper row of his wall should consist of  $\frac{1}{12}$ .

TRUE or FALSE?

We can draw the fraction wall only if each next row of the wall has twice as many cells as previous row.

**False**

Each two equivalent fractions have numerators and denominators multiplied by the same number.

**True**