

# EQUIVALENT FRACTIONS - RELATIONSHIP BETWEEN NUMERATOR + DENOMINATOR.

## INVESTIGATIONS OVERVIEW PAGE

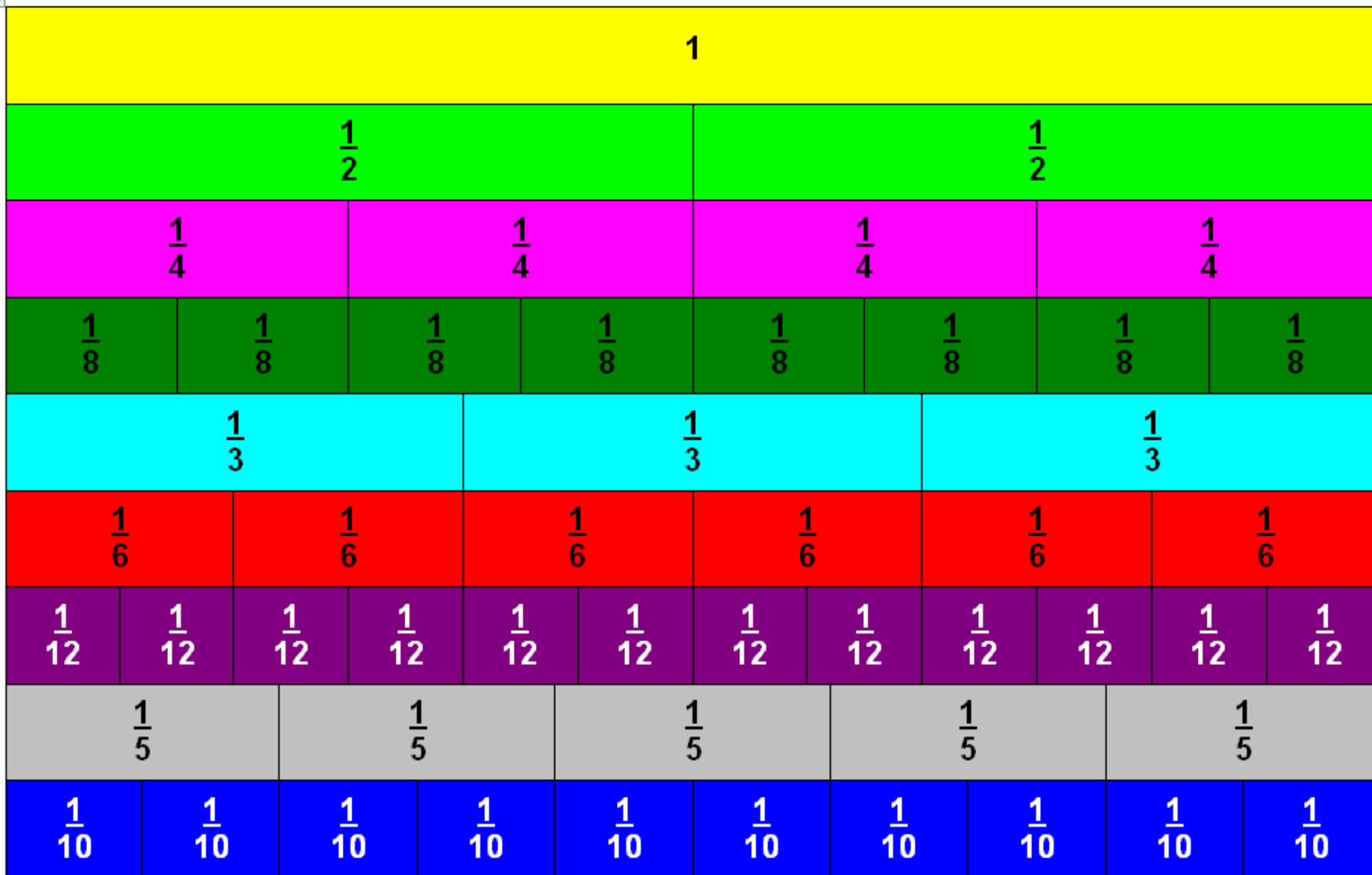
THIS PAGE IS A SUMMARY OF THE INVESTIGATIONS THAT STUDENTS MAY ENGAGE IN TO DEEPEN THEIR RELATIONAL UNDERSTANDING. INVESTIGATIONS WITH INSTRUCTIONS TO STUDENTS FOLLOW ON SUBSEQUENT PAGES.

- In pairs, children have a commercially available fraction wall. They select a unit fraction ( $\frac{1}{2}, \frac{1}{4}, \frac{1}{8}, \frac{1}{3}, \frac{1}{6}, \frac{1}{12}, \frac{1}{5}, \frac{1}{10}$ ) and then build a fraction wall under it to identify equivalent fractions. Children record the equivalent fractions in a number sentence. Children identify the relationship between the numerator and denominator in the equivalent fractions. Children use the relationship to create other equivalent fractions not on the fraction wall. **Reflection: How do we know if fractions are equivalent?**
- In pairs, children have a commercially available fraction wall. They select a non-unit fraction ( $\frac{2}{4}, \frac{3}{4}, \frac{2}{8}, \frac{3}{8}, \frac{4}{8}, \frac{5}{8}, \frac{6}{8}, \frac{7}{8}, \frac{2}{3}, \frac{2}{6}, \frac{3}{6}, \frac{4}{6}, \frac{5}{6}, \frac{2}{12}, \frac{3}{12}, \frac{4}{12}, \frac{5}{12}, \frac{6}{12}, \frac{7}{12}, \frac{8}{12}, \frac{9}{12}, \frac{10}{12}, \frac{11}{12}, \frac{2}{5}, \frac{3}{5}, \frac{4}{5}, \frac{2}{10}, \frac{3}{10}, \frac{4}{10}, \frac{5}{10}, \frac{6}{10}, \frac{7}{10}, \frac{8}{10}, \frac{9}{10}$ ) and then build a fraction wall under it to identify equivalent fractions. Children record the equivalent fractions in a number sentence. Children identify the relationship between the numerator and denominator in the equivalent fractions. Children use the relationship to create other equivalent fractions not on the fraction wall. **Reflection: How do we know if fractions are equivalent?**
- Children have a pack of playing cards. They select cards to make a unit fraction. They identify the relationship between the numerator and denominator. They use the relationship between the numerator and denominator to create equivalent fractions. **Reflection: How do we know if fractions are equivalent?**
- Children have a pack of playing cards. They select cards to make a non- unit fraction. They identify the relationship between the numerator and denominator. They use the relationship between the numerator and denominator to create equivalent fractions. **Reflection: How do we know if fractions are equivalent?**
- Children have a set of [fraction cards](#). They group the fractions into groups of equivalent fractions. They explain how they know the fractions are equivalent. **Reflection: How do we know if fractions are equivalent?**

$\frac{1}{2}$	$\frac{2}{2}$	$\frac{1}{3}$	$\frac{2}{3}$
$\frac{3}{3}$	$\frac{1}{4}$	$\frac{2}{4}$	$\frac{3}{4}$
$\frac{4}{4}$	$\frac{1}{5}$	$\frac{2}{5}$	$\frac{3}{5}$
$\frac{4}{5}$	$\frac{5}{5}$	$\frac{1}{6}$	$\frac{2}{6}$

$\frac{3}{6}$	$\frac{4}{6}$	$\frac{5}{6}$	$\frac{6}{6}$
$\frac{1}{8}$	$\frac{2}{8}$	$\frac{3}{8}$	$\frac{4}{8}$
$\frac{5}{8}$	$\frac{6}{8}$	$\frac{7}{8}$	$\frac{8}{8}$
$\frac{1}{10}$	$\frac{2}{10}$	$\frac{3}{10}$	$\frac{4}{10}$

$\frac{5}{10}$	$\frac{6}{10}$	$\frac{7}{10}$	$\frac{8}{10}$
$\frac{9}{10}$	$\frac{10}{10}$	$\frac{1}{12}$	$\frac{2}{12}$
$\frac{3}{12}$	$\frac{4}{12}$	$\frac{5}{12}$	$\frac{6}{12}$
$\frac{7}{12}$	$\frac{8}{12}$	$\frac{9}{12}$	$\frac{10}{12}$
$\frac{11}{12}$	$\frac{12}{12}$	0	1



## Equivalent Fractions - Relationship Between Numerator + Denominator

Have a fraction wall.

Select a unit fraction ( $\frac{1}{2}, \frac{1}{4}, \frac{1}{8}, \frac{1}{3}, \frac{1}{6}, \frac{1}{12}, \frac{1}{5}, \frac{1}{10}$ )

Build a fraction wall under the unit fraction to identify equivalent fractions.

Record the equivalent fractions in a number sentence.

Identify the relationship between the numerator and denominator in the equivalent fractions.

Use the relationship to create other equivalent fractions not on the fraction wall.

Reflection: How do we know if fractions are equivalent?

## Equivalent Fractions - Relationship Between Numerator + Denominator

Have a fraction wall (either a commercially available one or the one on the page below).

Select a non-unit fraction ( $\frac{2}{4}, \frac{3}{4}, \frac{2}{8}, \frac{3}{8}, \frac{4}{8}, \frac{5}{8}, \frac{6}{8}, \frac{7}{8}, \frac{2}{3}, \frac{2}{6}, \frac{3}{6}, \frac{4}{6}, \frac{5}{6}, \frac{2}{12}, \frac{3}{12}, \frac{4}{12}, \frac{5}{12}, \frac{6}{12}, \frac{7}{12}, \frac{8}{12}, \frac{9}{12}, \frac{10}{12}, \frac{11}{12}, \frac{2}{5}, \frac{3}{5}, \frac{4}{5}, \frac{2}{10}, \frac{3}{10}, \frac{4}{10}, \frac{5}{10}, \frac{6}{10}, \frac{7}{10}, \frac{8}{10}, \frac{9}{10}$ )

Build a fraction wall under it to identify equivalent fractions.

Record the equivalent fractions in a number sentence.

Identify the relationship between the numerator and denominator in the equivalent fractions.

Use the relationship to create other equivalent fractions not on the fraction wall.

Reflection: How do we know if fractions are equivalent?

## Equivalent Fractions - Relationship Between Numerator + Denominator

Have a pack of playing cards.

Select cards to make a unit fraction.

Identify the relationship between the numerator and denominator.

Use the relationship between the numerator and denominator to create equivalent fractions.

Reflection: How do we know if fractions are equivalent?



## Equivalent Fractions - Relationship Between Numerator + Denominator

Have a pack of playing cards.

Select cards to make a non-unit fraction.

Identify the relationship between the numerator and denominator.

Use the relationship between the numerator and denominator to create equivalent fractions.

Reflection: How do we know if fractions are equivalent?

## Equivalent Fractions - Relationship Between Numerator + Denominator

Have a set of fraction cards.

Group the fractions into groups of equivalent fractions.

Explain how you know the fractions are equivalent.

Reflection: How do we know if fractions are equivalent?