TIPP&SEE Adding Fractions with Same Denominators

Objective: I can use variables in multiple lines of code.
Scratch Link: Adding Fractions with Same Denominators (https://scratch.mit.edu/projects/210099188/)

Start with **TIPP&SEE!**   Get a **TIPP** from the Project Page.

Read carefully: **T**itle   **I**nstructions   **P**urpose

Play the project and write down the action(s) that happened for each event below.

① When I clicked 🚩 : _____

② When I clicked on 🦆 : _____

③ When I clicked on 🔵 : _____

④ How many times did the duck jump? _____

⑤ Write a fraction number sentence to represent the duck's jumps. _____
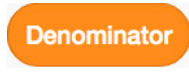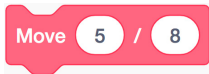
SEE Inside. Make changes, play, and observe closely to understand the code.

⑥ **E**xplore: Click on the Fraction Circle **S**prite, and look closely at the code. Circle your answers.
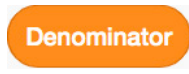
a. This block tells the duck how far to fly:

Move 5 / 8   Denominator   Setup   Divide Number Line Into 8 Parts

b. This block draws the tick marks on the number line:

Move 5 / 8   Denominator   Setup   Divide Number Line Into 8 Parts

c. These blocks have a place to enter the fraction's denominator. (You can circle more than one.)

Move 5 / 8   Denominator   Setup   Divide Number Line Into 8 Parts

TIPP&SEE Adding Fractions with Same Denominators (con't)

⑦ Change the starting script so that the duck flies to the fraction $\frac{4}{12}$.

Fill in the script below to show what you did.

```
when 🚩 clicked
Setup
Divide Number Line Into ( ) Parts
Move ( ) / ( )
Move ( ) / ( )
```

⑧ In how many blocks did you have to change the denominator? _____

⑨ Circle one: This is the block I can use to represent the denominator in more than one place.

a. `Divide Number Line Into ( 8 ) Parts`   **Denominator**   `Setup`

b. Drag a Denominator variable block into each place the denominator is used in the script. Play the script. What happens? _____

⑩ Fix your script by adding a block to set the value of the variable. When your script is working, draw it below.

```
when 🚩 clicked
```

⑪ **Think:** How could you change the script now to use a different denominator? Talk about it with a partner.
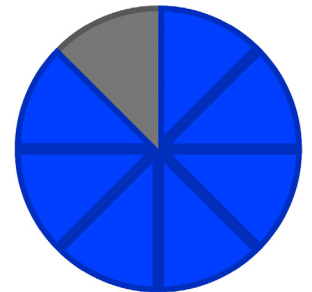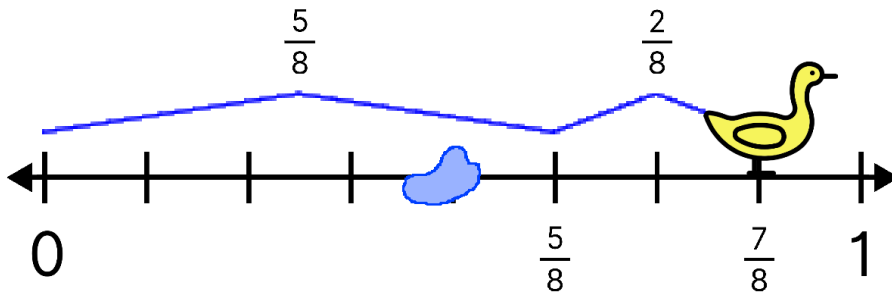
Fraction Sums

Use the Scratch project to find fractions with the same denominator that add up to each sum. Be sure to help the duck avoid the pond! Fill in the blanks in each script and each number sentence to show what you did. Then draw the duck movement and the fraction circle pieces.

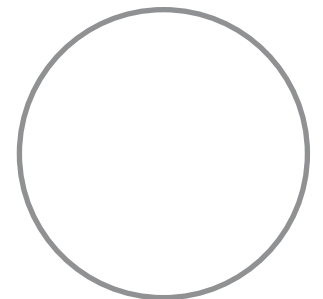| Code	Fraction A	+	Fraction B	=	Sum

E.g. Find two fractions whose sum is $\frac{7}{8}$.

when 🏳 clicked
Setup
Set Denominator to (8)
Divide Number Line Into (Denominator) Parts
Move (5) / (Denominator)
Move (2) / (Denominator)

$$\frac{5}{8} \quad + \quad \frac{2}{8} \quad = \quad \frac{7}{8}$$

① Find two different fractions whose sum is $\frac{7}{8}$.

when 🏳 clicked
Setup
Set Denominator to ( )
Divide Number Line Into (Denominator) Parts
Move ( ) / (Denominator)
Move ( ) / (Denominator)

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

Fraction Sums (con't)

Fill in the blanks in each script and each number sentence.
Then draw the duck movement and the fraction circle pieces.

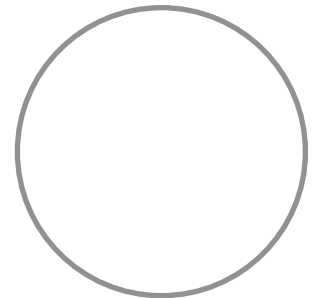| Code	Fraction A	+	Fraction B	=	Sum

② Find two fractions whose sum is $\frac{4}{6}$.

```
when  clicked
Setup
Set Denominator to (   )
Divide Number Line Into  Denominator  Parts
Move (   ) / Denominator
Move (   ) / Denominator
```

$$\frac{}{6} \quad + \quad \frac{}{6} \quad = \quad \frac{4}{6}$$

③ Find two different fractions whose sum is $\frac{4}{6}$.

```
when  clicked
Setup
Set Denominator to (   )
Divide Number Line Into  Denominator  Parts
Move (   ) / Denominator
Move (   ) / Denominator
```

$$\frac{}{6} \quad + \quad \frac{}{6} \quad = \quad \frac{4}{6}$$

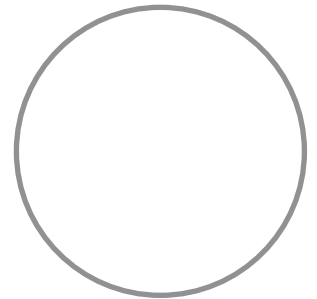# Fraction Sums (con't)

Fill in the blanks in each script and each number sentence.
Then draw the duck movement and the fraction circle pieces.

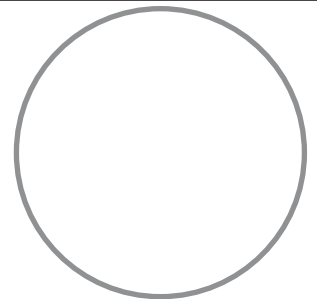| Code	Fraction A + Fraction B + Fraction B = Sum

④ Find three fractions whose sum is $\dfrac{8}{12}$.

Code	
when ⚑ clicked Setup Set Denominator to ◯ Divide Number Line Into ⬭Denominator⬭ Parts Move ◯ / Denominator Move ◯ / Denominator Move ◯ / Denominator	$\dfrac{}{12} + \dfrac{}{12} + \dfrac{}{12} = \dfrac{8}{12}$

⑤ Find three other fractions whose sum is $\dfrac{8}{12}$.

Code	
when ⚑ clicked Setup Set Denominator to ◯ Divide Number Line Into ⬭Denominator⬭ Parts Move ◯ / Denominator Move ◯ / Denominator Move ◯ / Denominator	$\dfrac{}{12} + \dfrac{}{12} + \dfrac{}{12} = \dfrac{8}{12}$

Fraction Sums (con't)

Fill in the blanks in each script and each number sentence.
Then draw the duck movement and the fraction circle pieces.

Code	Fraction A + Fraction B + Fraction B = Sum

⑥ Find three fractions whose sum is $\frac{3}{4}$.

```
when 🚩 clicked
Setup
Set Denominator to ( )
Divide Number Line Into (Denominator) Parts
Move ( ) / (Denominator)
Move ( ) / (Denominator)
Move ( ) / (Denominator)
```

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

⑦ Create your own number sentence using three fractions whose sum is less than 1.

```
when 🚩 clicked
Setup
Set Denominator to ( )
Divide Number Line Into (Denominator) Parts
Move ( ) / (Denominator)
Move ( ) / (Denominator)
Move ( ) / (Denominator)
```

$$\frac{}{} + \frac{}{} + \frac{}{} = \frac{}{}$$