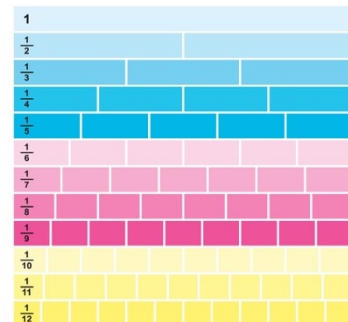


Adding Fractions Using Fractions Strips



A student adds the fractions $\frac{1}{8} + \frac{3}{8}$ using fraction strips.

I'll explore the steps of their solution path.



The student begins by drawing two strips that are equal in size.

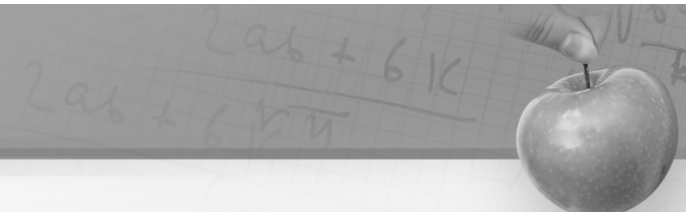
- What does each strip represent?
- Why is it important to begin with two strips the same size?

Next, the student divides each strip into eight equal parts, or eighths.

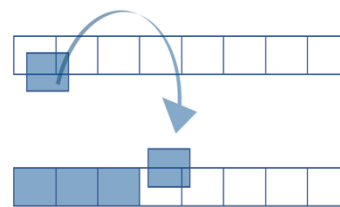
- *Why does the student perform this step?*
- *How did they decide on eight equal parts?*

The student shades part of each strip.

- How did the student determine the amount to shade on each strip?



- How would I describe or explain what the student is doing at this step?

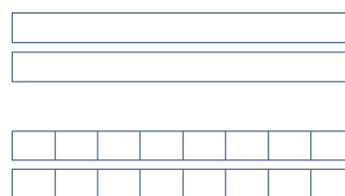


The student completes their solution by writing the fraction *four-eighths*... as *one-half*.

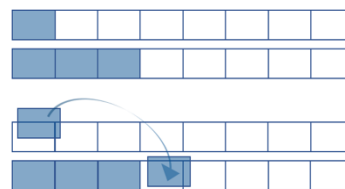
- How could I show this final solution step using the fraction strips?

$$\frac{1}{8} + \frac{3}{8} = \frac{4}{8} = \frac{1}{2}$$

- How would I summarize the previous fraction strip solution?



- How do the fraction strips show why we need common denominators to add fractions?



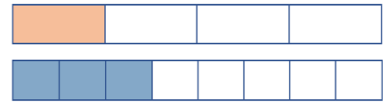


$2ab + 6k$
 $2ab + 6k$

- Would it be possible to use the same fraction strip solution to solve... $\frac{1}{4} + \frac{3}{8}$?
- Can I predict where my solution might involve an extra step?

Draw
Divide
Count n' shade
Combine

- How would I explain and demonstrate the extra step required to determine the sum using fraction strips?



- What important step am I performing when I represent *one-fourth* as *two-eighths*?

$$\frac{2}{8} + \frac{3}{8} = \frac{5}{8}$$

Adding Fractions Using Fractions Strips



- ✓ I can draw a fraction strip to represent a fraction amount
- ✓ I can explain and demonstrate how I use fraction strips to determine the sum of two fractions
- ✓ I can use fraction strips to explain why common denominators are needed when adding fractions
- ✓ I can use fraction strips to illustrate how two different fractions are equivalent