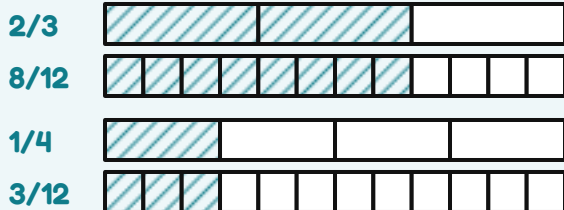


Add and subtract unlike fractions

Rename the fractions so the parts are the same size, then add or subtract.

1 Study the model.

Worked example



- 1 Find a common denominator: 12 is a multiple of both 3 and 4.
- 2 Rename each fraction as twelfths: $\frac{2}{3} = \frac{8}{12}$ and $\frac{1}{4} = \frac{3}{12}$.
- 3 Add the numerators and keep the denominator: $8 + 3 = 11$, so the sum is $\frac{11}{12}$.

2 Rename with a common denominator. Then add or subtract. Simplify.

1. $\frac{1}{2} + \frac{1}{3} = \frac{\boxed{}}{\boxed{}} + \frac{\boxed{}}{\boxed{}} = \frac{\boxed{}}{\boxed{}}$

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

3. $\frac{2}{5} + \frac{1}{10} = \frac{\boxed{}}{\boxed{}} + \frac{\boxed{}}{\boxed{}} = \frac{\boxed{}}{\boxed{}}$

4. $\frac{1}{3} + \frac{1}{6} = \frac{\boxed{}}{\boxed{}} + \frac{\boxed{}}{\boxed{}} = \frac{\boxed{}}{\boxed{}}$

5. $\frac{3}{4} + \frac{1}{6} = \frac{\boxed{}}{\boxed{}} + \frac{\boxed{}}{\boxed{}} = \frac{\boxed{}}{\boxed{}}$

6. $\frac{2}{3} + \frac{1}{5} = \frac{\boxed{}}{\boxed{}} + \frac{\boxed{}}{\boxed{}} = \frac{\boxed{}}{\boxed{}}$

7. $\frac{3}{4} - \frac{1}{2} = \frac{\boxed{}}{\boxed{}} - \frac{\boxed{}}{\boxed{}} = \frac{\boxed{}}{\boxed{}}$

8. $\frac{5}{6} - \frac{1}{3} = \frac{\boxed{}}{\boxed{}} - \frac{\boxed{}}{\boxed{}} = \frac{\boxed{}}{\boxed{}}$

9. $\frac{7}{10} - \frac{2}{5} = \frac{\boxed{}}{\boxed{}} - \frac{\boxed{}}{\boxed{}} = \frac{\boxed{}}{\boxed{}}$

10. $\frac{2}{3} - \frac{1}{4} = \frac{\boxed{}}{\boxed{}} - \frac{\boxed{}}{\boxed{}} = \frac{\boxed{}}{\boxed{}}$

11. $\frac{5}{8} - \frac{1}{4} = \frac{\boxed{}}{\boxed{}} - \frac{\boxed{}}{\boxed{}} = \frac{\boxed{}}{\boxed{}}$

12. $\frac{4}{5} - \frac{1}{2} = \frac{\boxed{}}{\boxed{}} - \frac{\boxed{}}{\boxed{}} = \frac{\boxed{}}{\boxed{}}$

3 Solve the seawall bike ride problems.

13. Priya bikes $\frac{3}{4}$ km along the seawall to the park, then $\frac{2}{3}$ km to the library. How far does she bike?

Answer km

14. The seawall path to the beach is $\frac{5}{6}$ km long. Liam has ridden $\frac{1}{2}$ km. How much farther does he have to go?

Answer km