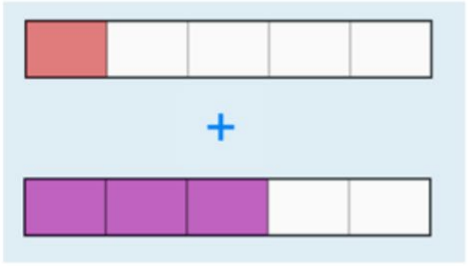
2.3 Add & Subtract Rational Numbers

PRACTICE

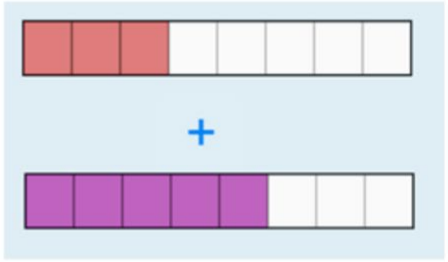
Write an expression for the fraction strip shown below. Then perform the operation.

1.



$\frac{1}{5} + \frac{3}{5} = \frac{4}{5}$

2.

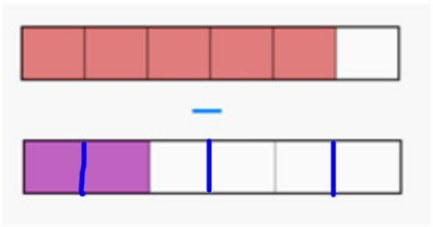


$\frac{3}{8} + \frac{5}{8} = \frac{8}{8} = 1$

3.

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

4.



$\frac{5}{6} - \frac{1}{3}$

$\frac{5}{6} - \frac{2}{6} = \frac{3}{6} = \frac{1}{2}$

Perform the indicated operation on fractions with like denominators. Reduce fractions if possible.

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

6. $\frac{5}{9} - \frac{2}{9} = \frac{3}{9}$ $\boxed{\frac{1}{3}}$

7. $\frac{5}{10} + \frac{3}{10} = \frac{8}{10}$ $\boxed{\frac{4}{5}}$

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

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

10. $\frac{7}{11} - \frac{4}{11} = \boxed{\frac{3}{11}}$

Perform the indicated operation on fractions with unlike denominators. Reduce fractions if possible.

11. $\frac{4\cdot 2}{4\cdot 5} + \frac{1\cdot 5}{4\cdot 5}$

$\frac{8}{20} + \frac{5}{20} = \boxed{\frac{13}{20}}$

12. $\frac{5}{6} - \frac{1\cdot 2}{3\cdot 2}$ $\boxed{\frac{1}{2}}$

$\frac{5}{6} - \frac{2}{6} = \frac{3}{6}$

13. $-\frac{1}{8} + \frac{3\cdot 2}{4\cdot 2}$

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

Perform the indicated operation on fractions with unlike denominators. Reduce fractions if possible.

14. $\frac{4\cdot 2}{4\cdot 3}+\frac{3\cdot 3}{4\cdot 3}=$

$-\frac{8}{12}+\frac{9}{12}=\boxed{\frac{1}{12}}$

15. $\frac{3\cdot 1}{3\cdot 2}-\frac{1}{6}=$ $\boxed{\frac{1}{3}}$

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

16. $\frac{4\cdot 1}{4\cdot 7}+\frac{3\cdot 7}{4\cdot 7}=$

$\frac{4}{28}+\frac{21}{28}=\boxed{\frac{25}{28}}$

Perform the indicated operation on fractions. Reduce fractions if possible.

17. $\frac{5\cdot 2}{5\cdot 3}+\frac{1\cdot 3}{5\cdot 3}=$

$\frac{10}{15}+\frac{3}{15}=\boxed{\frac{13}{15}}$

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

19. $\frac{5}{8}-\frac{3\cdot 2}{4\cdot 2}=$

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

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

21. $\frac{4\cdot 2}{4\cdot 3}+\frac{1\cdot 3}{4\cdot 3}=$

$\frac{8}{12}+\frac{3}{12}=\boxed{\frac{11}{12}}$

22. $\frac{4}{5}+\left(-\frac{1}{5}\right)=$

$\frac{4}{5}-\frac{1}{5}=\boxed{\frac{3}{5}}$

23. $-\frac{7}{10}+\frac{9}{10}=\frac{2}{10}$

$\boxed{\frac{1}{5}}$

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

$\boxed{-\frac{3}{4}}$

25. $\frac{5\cdot 1}{5\cdot 6}+\frac{3\cdot 6}{5\cdot 6}=$

$\frac{5}{30}+\frac{18}{30}=\boxed{\frac{23}{30}}$

26. $\frac{7}{8}-\frac{3\cdot 2}{4\cdot 2}=$

$\frac{7}{8}-\frac{6}{8}=\boxed{\frac{1}{8}}$

27. $\frac{5}{12}-\frac{1\cdot 2}{6\cdot 2}=$

$\frac{5}{12}-\frac{2}{12}=\frac{3}{12}$

$\boxed{\frac{1}{4}}$

28. $\frac{1}{5}+\left(+\frac{3}{4}\right)=$

$\frac{4\cdot 1}{4\cdot 5}+\frac{3\cdot 5}{4\cdot 5}$

$\frac{4}{20}+\frac{15}{20}=\boxed{\frac{19}{20}}$