

Homework & Practice 9-3

Add Fractions with Like Denominators

Another Look!

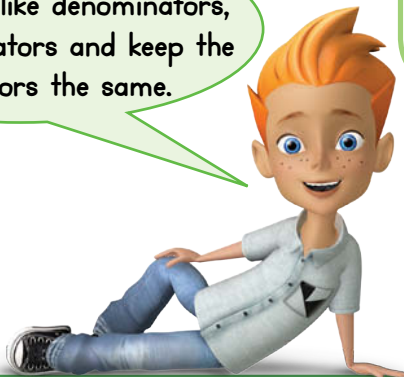
Find $\frac{4}{8} + \frac{2}{8}$.

When you add fractions with like denominators, add the numerators and keep the denominators the same.

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



$$\frac{4}{8} + \frac{2}{8} = \frac{6}{8}$$



For **1–18**, find each sum. Use drawings or fraction strips as needed.

1. $\frac{1}{3} + \frac{1}{3}$

2. $\frac{3}{10} + \frac{6}{10}$

3. $\frac{5}{12} + \frac{2}{12}$

4. $\frac{3}{12} + \frac{7}{12}$

5. $\frac{5}{10} + \frac{3}{10}$

6. $\frac{2}{8} + \frac{4}{8}$

7. $\frac{7}{10} + \frac{3}{10}$

8. $\frac{1}{8} + \frac{6}{8}$

9. $\frac{1}{10} + \frac{5}{10}$

10. $\frac{4}{5} + \frac{1}{5}$

11. $\frac{2}{8} + \frac{6}{8}$

12. $\frac{6}{10} + 0$

13. $\frac{1}{5} + \frac{2}{5} + \frac{4}{5}$

14. $\frac{2}{8} + \frac{1}{8} + \frac{12}{8}$

15. $\frac{2}{6} + \frac{10}{6}$

16. $\frac{20}{100} + \frac{25}{100} + \frac{25}{100}$

17. $\frac{2}{10} + \frac{6}{10} + \frac{1}{10}$

18. $\frac{10}{10} + \frac{10}{10} + \frac{10}{10}$

For 19–21, use the table at the right.

19. What fraction of the students voted for fruit juice or soda?
20. Which two beverages have a sum of $\frac{5}{8}$ of the student votes?
21. What combination of beverages makes up $\frac{6}{8}$ of the student votes?



DATA	Favorite Beverage	Fraction of Student Votes
	Iced Tea	$\frac{3}{8}$
	Fruit Juice	$\frac{2}{8}$
	Water	$\frac{1}{8}$
	Soda	$\frac{2}{8}$

22. **MP.1 Make Sense and Persevere**
A bus traveled 336 miles in 7 hours. It traveled the same number of miles each hour. If the bus continues at the same number of miles per hour, how many miles will the bus travel in 15 hours? Explain.

23. **Higher Order Thinking** How can you add $\frac{3}{10}$ and $\frac{2}{5}$? Explain.

Think about how you can rewrite fractions so they have like denominators.



Common Core Assessment

24. In Martha's pet store, $\frac{6}{6}$ of the hamsters are brown, $\frac{3}{6}$ of the mice are white, $\frac{2}{6}$ of the fish are blue, and $\frac{5}{6}$ of the birds are yellow. Draw lines connecting each fraction with the correct expression.

$$\frac{6}{6}$$

$$\frac{2}{6} + \frac{0}{6}$$

$$\frac{3}{6}$$

$$\frac{3}{6} + \frac{1}{6} + \frac{1}{6}$$

$$\frac{2}{6}$$

$$\frac{2}{6} + \frac{1}{6}$$

$$\frac{5}{6}$$

$$\frac{1}{6} + \frac{1}{6} + \frac{1}{6} + \frac{3}{6}$$

25. In Fred's catering order, $\frac{5}{12}$ of the lunches are sandwiches, $\frac{2}{12}$ are salads, $\frac{4}{12}$ are pastas, and $\frac{1}{12}$ are soups. Draw lines connecting each fraction with the correct expression.

$$\frac{5}{12}$$

$$\frac{0}{12} + \frac{1}{12}$$

$$\frac{2}{12}$$

$$\frac{1}{12} + \frac{2}{12} + \frac{1}{12}$$

$$\frac{4}{12}$$

$$\frac{3}{12} + \frac{2}{12}$$

$$\frac{1}{12}$$

$$\frac{1}{12} + \frac{1}{12}$$