


3.1 Exercises

FOR
EXTRA
HELP

 Addison-Wesley
Math Tutor Center

 MathXL

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 Student's
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 MyMathLab



Interactmath.com

Add and simplify the answer. See Example 2.

$$1. \frac{3}{8} + \frac{2}{8}$$

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

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

$$4. \frac{9}{11} + \frac{1}{11}$$

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

$$6. \frac{1}{14} + \frac{1}{14}$$

$$7. \begin{array}{r} \frac{9}{10} \\ + \frac{3}{10} \\ \hline \end{array}$$

$$8. \begin{array}{r} \frac{13}{12} \\ + \frac{5}{12} \\ \hline \end{array}$$

$$9. \begin{array}{r} \frac{2}{9} \\ + \frac{1}{9} \\ \hline \end{array}$$

$$10. \frac{7}{12} + \frac{3}{12}$$

$$11. \frac{6}{20} + \frac{4}{20} + \frac{3}{20}$$

$$12. \frac{1}{7} + \frac{2}{7} + \frac{3}{7}$$

$$13. \frac{4}{15} + \frac{2}{15} + \frac{5}{15}$$

$$14. \frac{5}{11} + \frac{1}{11} + \frac{4}{11}$$

$$15. \frac{3}{8} + \frac{7}{8} + \frac{2}{8}$$

$$16. \frac{4}{9} + \frac{1}{9} + \frac{7}{9}$$

$$17. \frac{2}{54} + \frac{8}{54} + \frac{12}{54}$$

$$18. \frac{7}{64} + \frac{15}{64} + \frac{20}{64}$$

Subtract and simplify the answer. See Example 3.

$$19. \frac{7}{8} - \frac{4}{8}$$

$$20. \frac{2}{3} - \frac{1}{3}$$

$$21. \frac{10}{11} - \frac{4}{11}$$

$$22. \frac{4}{5} - \frac{3}{5}$$

$$23. \frac{9}{10} - \frac{3}{10}$$

$$24. \frac{7}{14} - \frac{3}{14}$$

$$25. \begin{array}{r} \frac{31}{21} \\ - \frac{7}{21} \\ \hline \end{array}$$

$$26. \begin{array}{r} \frac{43}{24} \\ - \frac{13}{24} \\ \hline \end{array}$$

$$27. \begin{array}{r} \frac{27}{40} \\ - \frac{19}{40} \\ \hline \end{array}$$

$$28. \begin{array}{r} \frac{38}{55} \\ - \frac{16}{55} \\ \hline \end{array}$$

$$29. \frac{47}{36} - \frac{5}{36}$$

$$30. \frac{76}{45} - \frac{21}{45}$$

$$31. \frac{73}{60} - \frac{7}{60}$$

$$32. \frac{181}{100} - \frac{31}{100}$$

33. In your own words, write an explanation of how to add like fractions. Consider using three steps in your explanation.
34. Describe in your own words the difference between *like* fractions and *unlike* fractions. Give three examples of each type.

Solve each application problem. Write answers in lowest terms.

35. In June, Jose and Juanita Romero had saved $\frac{2}{5}$ of the amount needed for a down payment on their first home. By November, they had saved another $\frac{2}{5}$ of the amount needed. What fraction of the amount needed have they saved?
36. After an initial payment to a lotto winner, the state lottery commission still owed the lotto winner $\frac{7}{10}$ of his total winnings. If the state pays the lotto winner another $\frac{3}{10}$ of the winnings, what fraction is still owed?



37. The Gerards owe $\frac{5}{9}$ of a loan for last year's vacation. If they pay $\frac{2}{9}$ of it this month, what fraction of the loan will they still owe?
38. Phil Fravesi, general contractor, completes $\frac{3}{12}$ of a hobby and toy train addition to his home in April. In May, he completes another $\frac{5}{12}$ of the project. What portion of the project has he completed?
39. An organic farmer purchased $\frac{9}{10}$ acre of land one year and $\frac{3}{10}$ acre the next year. She then planted carrots on $\frac{7}{10}$ acre of the land and squash on the remainder. How much land is planted in squash?
40. A forester planted $\frac{5}{12}$ acre in seedlings in the morning and $\frac{11}{12}$ acre in the afternoon. If $\frac{7}{12}$ acre of seedlings were destroyed by frost, how many acres remained?