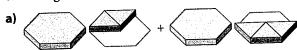
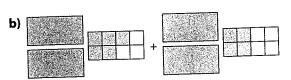
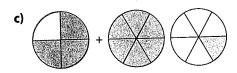
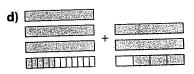
For help with #1 to #3, refer to Example 1 on pages 116–117.

1. Write and solve the addition statement for each diagram.









2. Determine the sum. Express your answer as a mixed number in lowest terms. Estimate to check if your answer is reasonable.

a)
$$3\frac{1}{8} + 5\frac{5}{8}$$

b)
$$2\frac{2}{5} + 1\frac{4}{5}$$

c)
$$\frac{12}{7} + \frac{7}{5}$$

d)
$$3\frac{1}{2} + 3\frac{2}{5}$$

e)
$$1\frac{3}{4} + 3\frac{5}{6}$$

f)
$$\frac{7}{3} + 2\frac{2}{5}$$

3. Add. Write your answers in lowest terms.

a)
$$2\frac{5}{6} + 3\frac{1}{3}$$

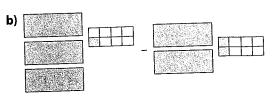
b)
$$1\frac{2}{3} + 1\frac{3}{4}$$

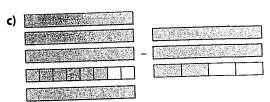
c)
$$2\frac{1}{7} + 4\frac{2}{7}$$

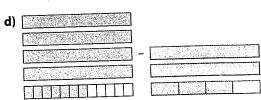
d)
$$4\frac{3}{10} + 7\frac{1}{2}$$

For help with #4 to #6, refer to Example 2 on pages 118–119.

4. Write and solve the subtraction statement for each diagram.







5. Subtract. Express your answer as a mixed number in lowest terms. Estimate to check if your answer is reasonable.

a)
$$4\frac{4}{9} - 3\frac{1}{9}$$

b)
$$3\frac{1}{4} - 1\frac{1}{4}$$

c)
$$5\frac{2}{7} - 1\frac{5}{7}$$

d)
$$6\frac{7}{10} - 3\frac{2}{5}$$

e)
$$5\frac{5}{9} - 2\frac{2}{3}$$

f)
$$\frac{7}{3} - 1\frac{1}{5}$$

6. Subtract. Write your answers in lowest terms.

a)
$$2\frac{4}{5} - 1\frac{3}{5}$$

b)
$$4\frac{3}{4} - 2\frac{1}{3}$$

c)
$$2\frac{1}{10} - \frac{3}{5}$$

d)
$$3\frac{4}{5} - 1\frac{3}{7}$$

- 7. The painters finished painting $1\frac{3}{4}$ rooms before lunch. After lunch, they finished another $2\frac{1}{4}$ rooms. How many rooms in total did they paint?
- **8.** Leanne is learning a new dance routine. On Saturday, she rehearsed for $1\frac{2}{3}$ h. On Sunday, she rehearsed for $2\frac{1}{4}$ h. How long did Leanne spend rehearsing this weekend?
- **9.** After $2\frac{2}{5}$ h, a baseball game was almost over when the score became tied. The extra innings extended the total playing time to $4\frac{1}{4}$ h. How long did the extra innings take?
- **10.** Ben ran $1\frac{5}{12}$ laps for gym class. Mei ran $\frac{18}{12}$ laps. Ben said he ran farther than Mei. Who ran farther and by how much?
- 11. Competency Check After dinner, $1\frac{1}{2}$ ham sandwiches and $2\frac{3}{4}$ egg salad sandwiches are left. Jeremy and his sister want to use 4 of the leftover sandwiches for their lunches tomorrow. What advice would you give them to prepare for their lunches? How would you justify your advice in a way they can understand?



- **12.** Karen goes to swimming practice for $1\frac{1}{3}$ h each day. In the morning, she has $\frac{2}{3}$ h of practice. How many hours of practice does she have in the afternoon?
- **13.** After Jack's party, $2\frac{3}{4}$ bottles of juice are left. He wants to take $\frac{1}{2}$ a bottle on a hike the next day, but his family drinks $2\frac{1}{4}$ bottles before he can tell them. Will Jack have enough to take on his hike? Justify your answer using two different methods.
- **14.** A large drink cooler has enough sports drink to fill $9\frac{3}{4}$ drinking bottles for a team of soccer players. Halfway through practice, the players drink $4\frac{7}{8}$ bottles of sports drink. Will there be enough sports drink in the cooler to finish the soccer practice? Justify your answer.

