

LESSON

Practice B

5-4 Regrouping to Subtract Mixed Numbers

Subtract. Write each answer in simplest form.

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

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

3. $14 - 8\frac{2}{9}$

4. $19\frac{1}{7} - 5\frac{1}{3}$

5. $7\frac{1}{4} - 3\frac{5}{8}$

6. $10\frac{1}{5} - 5\frac{7}{10}$

7. $1\frac{1}{6} - \frac{7}{9}$

8. $9\frac{1}{4} - 1\frac{7}{16}$

9. $6\frac{1}{5} - 3\frac{1}{4}$

Evaluate each expression for $a = 1\frac{1}{2}$, $b = 2\frac{1}{3}$, $c = \frac{1}{4}$, and $d = 3$. Write the answer in simplest form.

10. $b - a$

11. $a - c$

12. $b - c$

13. $d - a$

14. $d - b$

15. $d - c$

16. Tim had 6 feet of wrapping paper for Kylie's birthday present. He used $3\frac{3}{8}$ feet of the paper to wrap her gift. How much paper did Tim have left?

17. At his last doctor's visit, Pablo was $60\frac{1}{2}$ inches tall. At today's visit, he measured $61\frac{1}{6}$ inches. How much did Pablo grow between visits?

18. Yesterday, Danielle rode her bike for $5\frac{1}{2}$ miles. Today, she rode her bike for $6\frac{1}{4}$ miles. How much farther did Danielle ride her bike today?

LESSON Practice A
5-4 Regrouping to Subtract Mixed Numbers

Regroup each mixed number by regrouping a 1 from the whole number.

$$1. 1\frac{1}{4} \quad 2. 8\frac{5}{12} \quad 3. 4\frac{5}{9}$$

$$4. 2\frac{1}{3} \quad 5. 7\frac{1}{9} \quad 6. 10\frac{3}{7}$$

Subtract. Write each answer in simplest form.

$$7. 2 - \frac{2}{3} \quad 8. 1 - \frac{1}{4} \quad 9. 5\frac{1}{4} - 3\frac{1}{2}$$

$$10. 2\frac{1}{3} - 1\frac{5}{6} \quad 11. 1\frac{4}{9} - \frac{2}{3} \quad 12. 2\frac{1}{4} - 1\frac{7}{8}$$

$$13. 5\frac{3}{10} - 1\frac{4}{5} \quad 14. 2\frac{1}{4} - \frac{11}{16} \quad 15. 3\frac{1}{3} - 2\frac{4}{5}$$

16. At the pie-eating contest, Dina ate $3\frac{1}{3}$ pies. Mason ate $2\frac{5}{6}$ pies. How much more pie did Dina eat than Mason?
 $\frac{1}{2}$ of a pie

17. When Latoya bought her angel fish, it was $1\frac{1}{2}$ inches long. Now it is $2\frac{2}{3}$ inches long. How much did her angel fish grow?
 $\frac{5}{6}$ of an inch

LESSON Practice B
5-4 Regrouping to Subtract Mixed Numbers

Subtract. Write each answer in simplest form.

$$1. 4 - 2\frac{3}{8} \quad 2. 5\frac{1}{6} - 2\frac{2}{3} \quad 3. 14 - 8\frac{2}{9}$$

$$4. 19\frac{1}{7} - 5\frac{1}{3} \quad 5. 7\frac{1}{4} - 3\frac{5}{8} \quad 6. 10\frac{1}{5} - 5\frac{7}{10}$$

$$7. 1\frac{1}{6} - \frac{7}{9} \quad 8. 9\frac{1}{4} - 1\frac{7}{16} \quad 9. 6\frac{1}{5} - 3\frac{1}{4}$$

Evaluate each expression for $a = 1\frac{1}{2}$, $b = 2\frac{1}{3}$, $c = \frac{1}{4}$, and $d = 3$. Write the answer in simplest form.

$$10. b - a \quad 11. a - c \quad 12. b - c$$

$$13. d - a \quad 14. d - b \quad 15. d - c$$

16. Tim had 6 feet of wrapping paper for Kylie's birthday present. He used $3\frac{3}{8}$ feet of the paper to wrap her gift. How much paper did Tim have left?
 $2\frac{5}{8}$ feet of paper

17. At his last doctor's visit, Pablo was $60\frac{1}{2}$ inches tall. At today's visit, he measured $61\frac{1}{6}$ inches. How much did Pablo grow between visits?
 $\frac{2}{3}$ inch

18. Yesterday, Danielle rode her bike for $5\frac{1}{2}$ miles. Today, she rode her bike for $6\frac{1}{4}$ miles. How much farther did Danielle ride her bike today?
 $\frac{3}{4}$ mile

LESSON Practice C
5-4 Regrouping to Subtract Mixed Numbers

Subtract. Write each answer in simplest form.

$$1. 7 - 3\frac{11}{12} \quad 2. 8\frac{4}{13} - 1\frac{19}{26} \quad 3. 14\frac{5}{12} - 3\frac{7}{8}$$

$$4. 5\frac{1}{7} - 2\frac{2}{3} \quad 5. 19\frac{1}{12} - 4\frac{4}{9} \quad 6. 19\frac{3}{5} - 6\frac{5}{7}$$

$$7. 17\frac{1}{14} - 8\frac{7}{8} \quad 8. 14\frac{2}{7} - 11\frac{3}{4} \quad 9. 22\frac{3}{11} - 2\frac{9}{10}$$

Evaluate each expression for $a = 6\frac{3}{8}$, $b = 5\frac{1}{6}$, $c = 7\frac{1}{12}$, and $d = 10$. Write the answer in simplest form.

$$10. a - b \quad 11. c - a \quad 12. c - b$$

$$13. d - a \quad 14. d - b \quad 15. d - c$$

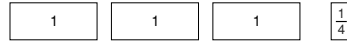
16. Annie bought $21\frac{2}{5}$ pounds of clay. She used $15\frac{5}{6}$ pounds of the clay to make a vase, and $1\frac{4}{5}$ pounds to make a coaster. How much clay does she have left?
 $3\frac{23}{30}$ pounds

17. In January, a chef bought $15\frac{1}{8}$ pounds of ground beef. In February, he bought $3\frac{4}{5}$ pounds less. Then in March he bought $1\frac{19}{20}$ pounds less than in February. How many pounds of ground beef did the chef buy in March?
 $9\frac{3}{8}$ pounds

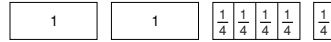
18. John is training for the triathlon. He wants to cover a distance of $16\frac{1}{4}$ miles today. If he runs for $6\frac{1}{2}$ miles and rides his bike for $7\frac{1}{5}$ miles, how far does he have to swim?
 $1\frac{19}{20}$ miles

LESSON Reteach
5-4 Regrouping to Subtract Mixed Numbers

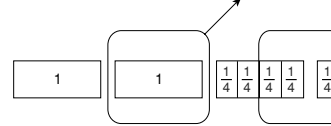
You can use fraction strips to regroup to subtract mixed numbers. To find $3\frac{1}{4} - 1\frac{3}{4}$, first model the first mixed number in the expression.



There are not enough $\frac{1}{4}$ pieces to subtract, so you have to regroup. Trade one one-whole strip for four $\frac{1}{4}$ pieces, because $\frac{4}{4} = 1$.



Now there are enough $\frac{1}{4}$ pieces to subtract. Take away $1\frac{3}{4}$.



The remaining pieces represent the difference. Write the difference in simplest form.

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

Use fraction strips to find each difference. Write your answer in simplest form.

$$1. 3\frac{1}{4} - 2\frac{3}{4} \quad 2. 3\frac{1}{6} - 1\frac{5}{6} \quad 3. 4\frac{3}{8} - 1\frac{7}{8} \quad 4. 3\frac{1}{3} - 2\frac{2}{3}$$

$$5. 5\frac{5}{12} - 2\frac{7}{12} \quad 6. 3\frac{3}{10} - 1\frac{9}{10} \quad 7. 5\frac{1}{8} - 1\frac{5}{8} \quad 8. 4 - 1\frac{1}{3}$$

$$9. 3\frac{3}{8} - 1\frac{3}{8} \quad 10. 2\frac{1}{8} - 1\frac{7}{8} \quad 11. 3 - 1\frac{1}{4} \quad 12. 6\frac{3}{8} - 2\frac{5}{8}$$