

ch 02.08

Student: _____

1. Add the following mixed numbers.

$$2\frac{9}{11} + 5\frac{1}{11}$$

A. 8

B. $7\frac{9}{121}$

C. $7\frac{9}{11}$

D. $7\frac{10}{11}$

E. $\frac{10}{11}$

2. Subtract the following mixed numbers.

$$10\frac{11}{17} - 2\frac{5}{17}$$

A. 8

B. $12\frac{6}{17}$

C. $8\frac{6}{17}$

D. $8\frac{16}{17}$

3. Subtract the following mixed numbers.

$$10\frac{1}{3} - 6\frac{2}{9}$$

A. $4\frac{5}{9}$

B. $4\frac{1}{9}$

C. 5

D. $4\frac{1}{18}$

4. Add the following mixed numbers.

$$9\frac{7}{8} + 9\frac{3}{4}$$

A. $18\frac{10}{12}$

B. $19\frac{5}{8}$

C. $18\frac{5}{8}$

D. 19

5. Add the following mixed numbers.

$$\begin{array}{r} 3\frac{2}{5} \\ + 2\frac{4}{15} \\ \hline \end{array}$$

A. $\frac{2}{3}$

B. $5\frac{2}{3}$

C. 6

D. 5

E. $5\frac{2}{5}$

6. Find the following sum. (Add.)

$$2\frac{6}{11} + 5\frac{5}{11} + 10$$

A. 18

B. 19

C. 17

D. 8

7. Find the following sum. (Add.)

$$8\frac{2}{3}$$

$$2\frac{1}{8}$$

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

A. $20\frac{7}{8}$

B. $21\frac{7}{8}$

C. $22\frac{1}{24}$

D. $21\frac{1}{24}$

E. $20\frac{1}{24}$

8. Find the sum of $5\frac{1}{3}$ and $1\frac{4}{7}$.

A. $4\frac{5}{21}$

B. $6\frac{5}{21}$

C. $6\frac{19}{21}$

D. $5\frac{19}{21}$

9. A jogger runs $8\frac{1}{3}$ miles on Monday, $2\frac{5}{6}$ miles on Tuesday, and $8\frac{2}{15}$ miles on Wednesday. What is the jogger's total mileage for this 3-day period?

A. $19\frac{3}{10}$ miles

B. $18\frac{1}{2}$ miles

C. $19\frac{1}{2}$ miles

D. $18\frac{3}{10}$ miles

10. A biker travels $17\frac{3}{4}$ miles on Friday, $21\frac{1}{3}$ miles on Saturday, and $10\frac{1}{7}$ miles on Sunday. What is the total distance in miles traveled by the biker during these three days?

A. $49\frac{19}{84}$

B. $45\frac{19}{84}$

C. $47\frac{19}{84}$

D. $46\frac{19}{84}$

E. $48\frac{19}{84}$

11. A two-story townhouse is $23\frac{1}{2}$ ft high. If the first floor is $13\frac{1}{4}$ ft high, how high is the second floor in feet?

A. $11\frac{1}{4}$

B. $10\frac{1}{4}$

C. $14\frac{1}{4}$

D. $12\frac{1}{4}$

E. $13\frac{1}{4}$

12. The base of a rectangle is $5\frac{1}{2}$ ft long, and its height is $3\frac{1}{4}$ ft long. Determine the perimeter of this rectangle, in feet.

A. $19\frac{1}{2}$

B. $17\frac{1}{2}$

C. $15\frac{1}{2}$

D. $16\frac{1}{2}$

E. $18\frac{1}{2}$

13. Three molding pieces, of lengths $6\frac{1}{3}$ ft, $5\frac{3}{5}$ ft, and $7\frac{1}{3}$ ft are placed end to end. What is the total length in feet of these three molding pieces?

A. $17\frac{4}{15}$

B. $18\frac{4}{15}$

C. $16\frac{4}{15}$

D. $15\frac{4}{15}$

E. $19\frac{4}{15}$

14. A painter mixes $5\frac{1}{4}$ gallons of red paint with $4\frac{2}{7}$ gallons of white paint. What is the total amount in gallons of the mix?

A. $7\frac{15}{28}$

B. $6\frac{15}{28}$

C. $8\frac{15}{28}$

D. $5\frac{15}{28}$

E. $9\frac{15}{28}$

15. Subtract the following mixed numbers.

$$\begin{array}{r} 1\frac{7}{8} \\ -4\frac{2}{3} \\ \hline \end{array}$$

A. -2

B. $\frac{5}{24}$

C. $-2\frac{19}{24}$

D. $-3\frac{7}{12}$

E. $-3\frac{5}{24}$

16. The following problem involves the concept of borrowing. (Subtract.)

$$11 - 4\frac{5}{11}$$

A. $-\frac{6}{11}$

B. $7\frac{6}{11}$

C. $6\frac{6}{11}$

D. $6\frac{5}{11}$

17. The following problem involves the concept of borrowing. (Subtract.)

$$12\frac{10}{17} - 6\frac{12}{17}$$

A. $\frac{15}{17}$

B. $4\frac{15}{17}$

C. $5\frac{15}{17}$

D. 6

18. The following problem involves the concept of borrowing. (Subtract.)

$$15\frac{1}{4} - 14\frac{2}{5}$$

A. $\frac{4}{5}$

B. $1\frac{17}{20}$

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

D. $\frac{17}{20}$

19. Find the difference between $20\frac{2}{3}$ and $6\frac{5}{6}$.

A. $14\frac{5}{6}$

B. $26\frac{2}{3}$

C. $13\frac{5}{6}$

D. $\frac{2}{3}$

20. A stock selling for $10\frac{1}{2}$ dollars a share on Tuesday sells for $2\frac{7}{8}$ dollars less a share on Friday. What does it sell for on Friday?
- A. $8\frac{1}{2}$
- B. $7\frac{5}{8}$
- C. $7\frac{1}{2}$
- D. $8\frac{5}{8}$
21. A painter uses $2\frac{1}{7}$ gallons of paint out of a container that had $7\frac{1}{3}$ gallons of paint before he started. How many gallons of paint are left in the container?
- A. $5\frac{4}{21}$
- B. 5
- C. $4\frac{4}{21}$
- D. $3\frac{4}{21}$
- E. $\frac{4}{21}$

22. A swimmer is crossing a(n) $\frac{8}{10}$ -mile wide channel. How many miles is she from reaching the opposite side after swimming $2\frac{9}{10}$ miles on this course?
- A. 5
B. $4\frac{1}{10}$
C. $6\frac{1}{10}$
D. $5\frac{1}{10}$
E. $\frac{1}{10}$
23. A new car has a gas tank with a capacity of 15 gallons. How many gallons are left in the tank after using $2\frac{7}{8}$ gallons?
- A. $11\frac{1}{8}$
B. $12\frac{1}{8}$
C. $9\frac{1}{8}$
D. $10\frac{1}{8}$
E. $8\frac{1}{8}$

24. Find the following sum. (Add.)

$$3\frac{7}{11} + 1\frac{4}{11} + 7$$

25. Find the following sum. (Add.)

$$1\frac{1}{3} + 6\frac{1}{7} + 1\frac{11}{21}$$

26. Add the following mixed numbers.

$$8\frac{6}{13} + 2\frac{6}{13}$$

Write your answer as a mixed number, not as an improper fraction. Simplify your answer.

27. Subtract the following mixed numbers.

$$7\frac{9}{11} - 6\frac{1}{11}$$

Write your answer as a mixed number, not as an improper fraction. Simplify your answer.

28. Subtract the following mixed numbers.

$$8\frac{1}{2} - 5\frac{1}{18}$$

Write your answer as a mixed number, not as an improper fraction. Simplify your answer.

29. Add the following mixed numbers.

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

Write your answer as a mixed number, not as an improper fraction. Simplify your answer.

30. Add the following mixed numbers.

$$\begin{array}{r} 4\frac{1}{3} \\ + 7\frac{4}{9} \\ \hline \end{array}$$

Write your answer as a mixed number, not as an improper fraction. Simplify your answer.

31. Subtract the following mixed numbers.

$$\begin{array}{r} 10\frac{5}{6} \\ -6\frac{1}{5} \\ \hline \end{array}$$

Write your answer as a mixed number, not as an improper fraction. Simplify your answer.

32. Find the following sum. (Add.)

$$\begin{array}{r} 3\frac{3}{4} \\ 6\frac{1}{6} \\ +10\frac{1}{3} \\ \hline \end{array}$$

Write your answer as a mixed number, not as an improper fraction. Simplify your answer.

33. Find the sum of $4\frac{6}{11}$ and $7\frac{1}{5}$.

Write your answer as a mixed number, not as an improper fraction. Simplify your answer.

34. A jogger runs $2\frac{1}{2}$ miles on Monday, $10\frac{1}{3}$ miles on Tuesday, and $9\frac{2}{5}$ miles on Wednesday. What is the jogger's total mileage for this 3-day period?

Write your answer as a mixed number, not as an improper fraction. Simplify your answer.

35. A biker travels $15\frac{1}{4}$ miles on Friday, $22\frac{1}{2}$ miles on Saturday, and $13\frac{3}{7}$ miles on Sunday. What is the total distance in miles traveled by the biker during these three days?

36. A two-story townhouse is $24\frac{1}{2}$ ft high. If the first floor is $13\frac{1}{4}$ ft high, how high in feet is the second floor?
37. The base of a rectangle is $4\frac{1}{3}$ ft long, and its height is $2\frac{1}{5}$ ft long. Determine the perimeter of this rectangle, in feet.
38. Three molding pieces, of lengths $6\frac{1}{3}$ ft, $4\frac{3}{5}$ ft, and $7\frac{1}{3}$ ft are placed end to end. What is the total length in feet of these three molding pieces?

39. A painter mixes $4\frac{1}{4}$ gallons of red paint with $3\frac{2}{7}$ gallons of white paint. What is the total amount in gallons of the mix?

40. The following problem involves the concept of borrowing. (Subtract.)

$$19 - 1\frac{6}{7}$$

Write your answer as a mixed number, not as an improper fraction. Simplify your answer.

41. The following problem involves the concept of borrowing. (Subtract.)

$$19\frac{5}{7} - 7\frac{7}{7}$$

Write your answer as a mixed number, not as an improper fraction. Simplify your answer.

42. The following problem involves the concept of borrowing. (Subtract.)

$$15\frac{1}{4} - 14\frac{3}{5}$$

Write your answer as a mixed or whole number, not as an improper fraction. Simplify your answer.

43. Find the difference between $14\frac{3}{5}$ and $1\frac{9}{10}$.

Write your answer as a mixed number, not as an improper fraction. Simplify your answer.

44. A stock selling for $7\frac{1}{2}$ dollars a share on Wednesday sells for $4\frac{3}{4}$ dollars less a share on Friday. What does it sell for on Friday?

Write your answer as a mixed number, not as an improper fraction. Simplify your answer.

45. A painter uses $2\frac{1}{4}$ gallons of paint out of a container that had $6\frac{1}{3}$ gallons of paint before he started. How many gallons of paint are left in the container?

46. A swimmer is crossing a(n) 6-mile wide channel. How many miles is she from reaching the opposite side after swimming $2\frac{7}{9}$ miles on this course?
47. A new car has a gas tank with a capacity of 14 gallons. How many gallons are left in the tank after using $3\frac{6}{7}$ gallons?

ch 02.08 Key

1. Add the following mixed numbers.

$$2\frac{9}{11} + 5\frac{1}{11}$$

A. 8

B. $7\frac{9}{121}$

C. $7\frac{9}{11}$

D. $7\frac{10}{11}$

E. $\frac{10}{11}$

2. Subtract the following mixed numbers.

$$10\frac{11}{17} - 2\frac{5}{17}$$

A. 8

B. $12\frac{6}{17}$

C. $8\frac{6}{17}$

D. $8\frac{16}{17}$

3. Subtract the following mixed numbers.

$$10\frac{1}{3} - 6\frac{2}{9}$$

A. $4\frac{5}{9}$

B. $4\frac{1}{9}$

C. 5

D. $4\frac{1}{18}$

4. Add the following mixed numbers.

$$9\frac{7}{8} + 9\frac{3}{4}$$

A. $18\frac{10}{12}$

B. $19\frac{5}{8}$

C. $18\frac{5}{8}$

D. 19

5. Add the following mixed numbers.

$$\begin{array}{r} 3\frac{2}{5} \\ + 2\frac{4}{15} \\ \hline \end{array}$$

A. $\frac{2}{3}$

B. $5\frac{2}{3}$

C. 6

D. 5

E. $5\frac{2}{5}$

6. Find the following sum. (Add.)

$$2\frac{6}{11} + 5\frac{5}{11} + 10$$

A. 18

B. 19

C. 17

D. 8

7. Find the following sum. (Add.)

$$\begin{array}{r} 8\frac{2}{3} \\ 2\frac{1}{8} \\ + 10\frac{1}{4} \\ \hline \end{array}$$

A. $20\frac{7}{8}$

B. $21\frac{7}{8}$

C. $22\frac{1}{24}$

D. $21\frac{1}{24}$

E. $20\frac{1}{24}$

8. Find the sum of $5\frac{1}{3}$ and $1\frac{4}{7}$.

A. $4\frac{5}{21}$

B. $6\frac{5}{21}$

C. $6\frac{19}{21}$

D. $5\frac{19}{21}$

9. A jogger runs $8\frac{1}{3}$ miles on Monday, $2\frac{5}{6}$ miles on Tuesday, and $8\frac{2}{15}$ miles on Wednesday. What is the jogger's total mileage for this 3-day period?

A. $19\frac{3}{10}$ miles

B. $18\frac{1}{2}$ miles

C. $19\frac{1}{2}$ miles

D. $18\frac{3}{10}$ miles

10. A biker travels $17\frac{3}{4}$ miles on Friday, $21\frac{1}{3}$ miles on Saturday, and $10\frac{1}{7}$ miles on Sunday. What is the total distance in miles traveled by the biker during these three days?

A. $49\frac{19}{84}$

B. $45\frac{19}{84}$

C. $47\frac{19}{84}$

D. $46\frac{19}{84}$

E. $48\frac{19}{84}$

11. A two-story townhouse is $23\frac{1}{2}$ ft high. If the first floor is $13\frac{1}{4}$ ft high, how high is the second floor in feet?

A. $11\frac{1}{4}$

B. $10\frac{1}{4}$

C. $14\frac{1}{4}$

D. $12\frac{1}{4}$

E. $13\frac{1}{4}$

12. The base of a rectangle is $5\frac{1}{2}$ ft long, and its height is $3\frac{1}{4}$ ft long. Determine the perimeter of this rectangle, in feet.

A. $19\frac{1}{2}$

B. $17\frac{1}{2}$

C. $15\frac{1}{2}$

D. $16\frac{1}{2}$

E. $18\frac{1}{2}$

13. Three molding pieces, of lengths $6\frac{1}{3}$ ft, $5\frac{3}{5}$ ft, and $7\frac{1}{3}$ ft are placed end to end. What is the total length in feet of these three molding pieces?

A. $17\frac{4}{15}$

B. $18\frac{4}{15}$

C. $16\frac{4}{15}$

D. $15\frac{4}{15}$

E. $19\frac{4}{15}$

14. A painter mixes $5\frac{1}{4}$ gallons of red paint with $4\frac{2}{7}$ gallons of white paint. What is the total amount in gallons of the mix?

A. $7\frac{15}{28}$

B. $6\frac{15}{28}$

C. $8\frac{15}{28}$

D. $5\frac{15}{28}$

E. $9\frac{15}{28}$

15. Subtract the following mixed numbers.

$$\begin{array}{r} 1\frac{7}{8} \\ -4\frac{2}{3} \\ \hline \end{array}$$

A. -2

B. $\frac{5}{24}$

C. $-2\frac{19}{24}$

D. $-3\frac{7}{12}$

E. $-3\frac{5}{24}$

16. The following problem involves the concept of borrowing. (Subtract.)

$$11 - 4\frac{5}{11}$$

A. $-\frac{6}{11}$

B. $7\frac{6}{11}$

C. $6\frac{6}{11}$

D. $6\frac{5}{11}$

17. The following problem involves the concept of borrowing. (Subtract.)

$$12\frac{10}{17} - 6\frac{12}{17}$$

A. $\frac{15}{17}$

B. $4\frac{15}{17}$

C. $5\frac{15}{17}$

D. 6

18. The following problem involves the concept of borrowing. (Subtract.)

$$15\frac{1}{4} - 14\frac{2}{5}$$

A. $\frac{4}{5}$

B. $1\frac{17}{20}$

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

D. $\frac{17}{20}$

19. Find the difference between $20\frac{2}{3}$ and $6\frac{5}{6}$.

A. $14\frac{5}{6}$

B. $26\frac{2}{3}$

C. $13\frac{5}{6}$

D. $\frac{2}{3}$

20. A stock selling for $10\frac{1}{2}$ dollars a share on Tuesday sells for $2\frac{7}{8}$ dollars less a share on Friday. What does it sell for on Friday?

A. $8\frac{1}{2}$

B. $7\frac{5}{8}$

C. $7\frac{1}{2}$

D. $8\frac{5}{8}$

21. A painter uses $2\frac{1}{7}$ gallons of paint out of a container that had $7\frac{1}{3}$ gallons of paint before he started.

How many gallons of paint are left in the container?

A. $5\frac{4}{21}$

B. 5

C. $4\frac{4}{21}$

D. $3\frac{4}{21}$

E. $\frac{4}{21}$

22. A swimmer is crossing a(n) 8-mile wide channel. How many miles is she from reaching the opposite side after swimming $2\frac{9}{10}$ miles on this course?

- A. 5
- B. $4\frac{1}{10}$
- C. $6\frac{1}{10}$
- D.** $5\frac{1}{10}$
- E. $\frac{1}{10}$

23. A new car has a gas tank with a capacity of 15 gallons. How many gallons are left in the tank after using $2\frac{7}{8}$ gallons?

- A. $11\frac{1}{8}$
- B.** $12\frac{1}{8}$
- C. $9\frac{1}{8}$
- D. $10\frac{1}{8}$
- E. $8\frac{1}{8}$

24. Find the following sum. (Add.)

$$3\frac{7}{11} + 1\frac{4}{11} + 7$$

12

25. Find the following sum. (Add.)

$$1\frac{1}{3} + 6\frac{1}{7} + 1\frac{11}{21}$$

9

26. Add the following mixed numbers.

$$8\frac{6}{13} + 2\frac{6}{13}$$

Write your answer as a mixed number, not as an improper fraction. Simplify your answer.

$$10\frac{12}{13}$$

27. Subtract the following mixed numbers.

$$7\frac{9}{11} - 6\frac{1}{11}$$

Write your answer as a mixed number, not as an improper fraction. Simplify your answer.

$$1\frac{8}{11}$$

28. Subtract the following mixed numbers.

$$8\frac{1}{2} - 5\frac{1}{18}$$

Write your answer as a mixed number, not as an improper fraction. Simplify your answer.

$$3\frac{4}{9}$$

29. Add the following mixed numbers.

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

Write your answer as a mixed number, not as an improper fraction. Simplify your answer.

$$8\frac{1}{4}$$

30. Add the following mixed numbers.

$$\begin{array}{r} 4\frac{1}{3} \\ + 7\frac{4}{9} \\ \hline \end{array}$$

Write your answer as a mixed number, not as an improper fraction. Simplify your answer.

$$11\frac{7}{9}$$

31. Subtract the following mixed numbers.

$$\begin{array}{r} 10\frac{5}{6} \\ - 6\frac{1}{5} \\ \hline \end{array}$$

Write your answer as a mixed number, not as an improper fraction. Simplify your answer.

$$4\frac{19}{30}$$

32. Find the following sum. (Add.)

$$\begin{array}{r} 3\frac{3}{4} \\ 6\frac{1}{6} \\ + 10\frac{1}{3} \\ \hline \end{array}$$

Write your answer as a mixed number, not as an improper fraction. Simplify your answer.

$$20\frac{1}{4}$$

33. Find the sum of $4\frac{6}{11}$ and $7\frac{1}{5}$.

Write your answer as a mixed number, not as an improper fraction. Simplify your answer.

$$11\frac{41}{55}$$

34. A jogger runs $2\frac{1}{2}$ miles on Monday, $10\frac{1}{3}$ miles on Tuesday, and $9\frac{2}{5}$ miles on Wednesday. What is the jogger's total mileage for this 3-day period?

Write your answer as a mixed number, not as an improper fraction. Simplify your answer.

$$22\frac{7}{30}$$

35. A biker travels $15\frac{1}{4}$ miles on Friday, $22\frac{1}{2}$ miles on Saturday, and $13\frac{3}{7}$ miles on Sunday. What is the total distance in miles traveled by the biker during these three days?

$$51\frac{5}{28}$$

36. A two-story townhouse is $24\frac{1}{2}$ ft high. If the first floor is $13\frac{1}{4}$ ft high, how high in feet is the second floor?

$$11\frac{1}{4}$$

37. The base of a rectangle is $4\frac{1}{3}$ ft long, and its height is $2\frac{1}{5}$ ft long. Determine the perimeter of this rectangle, in feet.

$$13\frac{1}{15}$$

38. Three molding pieces, of lengths $6\frac{1}{3}$ ft, $4\frac{3}{5}$ ft, and $7\frac{1}{3}$ ft are placed end to end. What is the total length in feet of these three molding pieces?

$$18\frac{4}{15}$$

39. A painter mixes $4\frac{1}{4}$ gallons of red paint with $3\frac{2}{7}$ gallons of white paint. What is the total amount in gallons of the mix?

$$7\frac{15}{28}$$

40. The following problem involves the concept of borrowing. (Subtract.)

$$19 - 1\frac{6}{7}$$

Write your answer as a mixed number, not as an improper fraction. Simplify your answer.

$$17\frac{1}{7}$$

41. The following problem involves the concept of borrowing. (Subtract.)

$$19\frac{5}{7} - 7\frac{7}{7}$$

Write your answer as a mixed number, not as an improper fraction. Simplify your answer.

$$11\frac{5}{7}$$

42. The following problem involves the concept of borrowing. (Subtract.)

$$15\frac{1}{4} - 14\frac{3}{5}$$

Write your answer as a mixed or whole number, not as an improper fraction. Simplify your answer.

$$\frac{13}{20}$$

43. Find the difference between $14\frac{3}{5}$ and $1\frac{9}{10}$.

Write your answer as a mixed number, not as an improper fraction. Simplify your answer.

$$12\frac{7}{10}$$

44. A stock selling for $7\frac{1}{2}$ dollars a share on Wednesday sells for $4\frac{3}{4}$ dollars less a share on Friday.

What does it sell for on Friday?

Write your answer as a mixed number, not as an improper fraction. Simplify your answer.

$$2\frac{3}{4}$$

45. A painter uses $2\frac{1}{4}$ gallons of paint out of a container that had $6\frac{1}{3}$ gallons of paint before he started.

How many gallons of paint are left in the container?

$$4\frac{1}{12}$$

46. A swimmer is crossing a(n) 6-mile wide channel. How many miles is she from reaching the opposite side after swimming $2\frac{7}{9}$ miles on this course?

$$3\frac{2}{9}$$

47. A new car has a gas tank with a capacity of 14 gallons. How many gallons are left in the tank after using $3\frac{6}{7}$ gallons?

$$10\frac{1}{7}$$