

Chapter 16: Fractions

Find the value of x .

$$1. \frac{3}{x} = \frac{1}{2}$$

$$2. \frac{3}{4} = \frac{9}{x}$$

$$3. \frac{5}{6} = \frac{15}{x}$$

$$4. \frac{6}{9} = \frac{x}{3}$$



$$5. \frac{x}{4} = \frac{12}{16}$$

$$6. \frac{2}{5} = \frac{8}{x}$$

$$7. \frac{2}{3} = \frac{x}{21}$$

$$8. \frac{5}{x} = \frac{10}{18}$$



Circle the equivalent fractions for each of the following questions.

Which fraction is equivalent to $\frac{2}{3}$?

- A. $\frac{1}{5}$
- B. $\frac{4}{6}$
- C. $\frac{7}{9}$
- D. $\frac{8}{12}$

Which fraction is equivalent to $\frac{1}{6}$?

- A. $\frac{2}{12}$
- B. $\frac{2}{4}$
- C. $\frac{7}{14}$
- D. $\frac{1}{5}$

Which fraction is equivalent to $\frac{8}{10}$?

- A. $\frac{7}{11}$
- B. $\frac{16}{20}$
- C. $\frac{1}{2}$
- D. $\frac{4}{5}$

Which fraction is equivalent to $\frac{2}{3}$?

- A. $\frac{1}{5}$
- B. $\frac{4}{6}$
- C. $\frac{7}{9}$
- D. $\frac{8}{12}$

Which fraction is equivalent to $\frac{9}{12}$?

- A. $\frac{6}{8}$
- B. $\frac{4}{6}$
- C. $\frac{3}{4}$
- D. $\frac{2}{3}$

Which fraction is equivalent to $\frac{1}{4}$?

- A. $\frac{4}{11}$
- B. $\frac{2}{8}$
- C. $\frac{1}{6}$
- D. $\frac{3}{12}$

Find the sum.

1. $3\frac{3}{5} + 5\frac{4}{5} =$ _____

11. $4\frac{2}{16} + 6\frac{13}{17} =$ _____

2. $5\frac{3}{7} + 5\frac{6}{7} =$ _____

12. $6\frac{19}{25} + 1\frac{13}{25} =$ _____

3. $1\frac{6}{18} + 9\frac{8}{18} =$ _____

13. $3\frac{4}{9} + 1\frac{7}{9} =$ _____

4. $2\frac{8}{15} + 6\frac{2}{15} =$ _____

14. $4\frac{17}{100} + 4\frac{84}{100} =$ _____

5. $3\frac{10}{12} + 4\frac{11}{12} =$ _____

15. $1\frac{6}{8} + 2\frac{5}{8} =$ _____

6. $6\frac{6}{14} + 4\frac{7}{14} =$ _____

16. $9\frac{11}{50} + 3\frac{7}{50} =$ _____

7. $2\frac{12}{20} + 8\frac{3}{20} =$ _____

17. $\frac{2}{11} + \frac{7}{10} =$ _____

8. $8\frac{3}{4} + 9\frac{3}{4} =$ _____

18. $10\frac{13}{14} + 4\frac{7}{14} =$ _____

9. $3\frac{2}{3} + 7\frac{2}{3} =$ _____

19. $7\frac{3}{5} + 7\frac{4}{5} =$ _____

10. $10\frac{1}{2} + 7\frac{1}{2} =$ _____

20. $\frac{2}{3} + \frac{4}{10} =$ _____

Add and subtract fractions with like denominators.

1. How much does $\frac{2}{9}$ adds to become $\frac{3}{9}$?

2. How much does $\frac{1}{3}$ adds to become $\frac{2}{3}$?

3. How much does $\frac{7}{10}$ adds to become $\frac{9}{10}$?

4. How much does $\frac{4}{5}$ subtract to become $\frac{3}{5}$?

5. How much does $\frac{5}{12}$ adds to become $\frac{11}{12}$?

6. How much does $\frac{4}{5}$ subtract to become $\frac{9}{10}$?

7. How much does $\frac{2}{6}$ add to become $\frac{5}{6}$?

8. How much does $\frac{8}{9}$ subtract to become $\frac{1}{9}$?

9. Add $\frac{2}{8}$ and $\frac{3}{8}$.



10. Add $\frac{7}{12}$ and $\frac{4}{12}$.

11. Subtract $\frac{3}{6}$ from $\frac{5}{6}$.

12. Add $\frac{4}{16}$ and $\frac{11}{16}$.

13. Minus $\frac{7}{18}$ from $\frac{8}{18}$.

14. Add $\frac{15}{36}$ and $\frac{7}{36}$.



15. Take away $\frac{7}{12}$ from $\frac{11}{12}$.

16. Add $\frac{2}{10}$, $\frac{1}{10}$ and $\frac{4}{10}$.

17. Subtract $\frac{4}{7}$ from 1.

18. Add $\frac{9}{30}$, $\frac{2}{30}$ and $\frac{7}{30}$.

19. Add $\frac{15}{45}$, $\frac{8}{45}$ and $\frac{11}{45}$.



20. Add $\frac{13}{53}$, $\frac{24}{53}$ and $\frac{7}{53}$.

21. Minus $\frac{14}{25}$ from $\frac{23}{25}$.

Compare the sums and differences of fractions with like denominators. Fill in the blanks with $<$, $>$ or $=$.

$$1. \frac{5}{7} (\quad) \frac{2}{7} + \frac{2}{7}$$

$$2. \frac{6}{8} (\quad) \frac{1}{8} + \frac{4}{8}$$

$$3. \frac{6}{7} (\quad) \frac{5}{7} + \frac{1}{7}$$

$$4. \frac{5}{8} + \frac{2}{8} (\quad) \frac{3}{8}$$

$$5. \frac{7}{9} - \frac{3}{9} (\quad) \frac{3}{9}$$

$$6. \frac{14}{16} - \frac{5}{16} (\quad) \frac{8}{16}$$

$$7. \frac{4}{12} (\quad) \frac{8}{12} - \frac{4}{12}$$

Answer the following word problems.

1. In a preparation for a picnic, Cindy made a salad with $\frac{2}{8}$ of a bag of iceberg lettuce and $\frac{1}{8}$ of a bag of Romaine lettuce. How many bags of lettuce did Cindy use in total?

2. Tony ran $\frac{15}{30}$ of a mile and walked $\frac{8}{30}$ of a mile. How much farther did Tony run than walk?

3. Joanne takes a piece of wood that is $\frac{16}{43}$ of an inch thick and glues it to a piece of wood that is $\frac{18}{43}$ of an inch thick. Together, what is the thickness of the two pieces of wood?



4. Vinci filled a bucket with $\frac{28}{37}$ of a gallon of water. Later, she poured out $\frac{19}{37}$ of a gallon of water. How much water is left in the bucket?

Solve the following questions.

1. $\frac{1}{2} + \frac{1}{4} =$ _____

11. $4\frac{3}{4} - 1\frac{1}{2} =$ _____

2. $\frac{2}{3} + \frac{1}{6} =$ _____

12. $6\frac{19}{25} - 1\frac{2}{5} =$ _____

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

13. $3\frac{7}{9} - 1\frac{1}{6} =$ _____

4. $\frac{1}{15} + \frac{2}{5} =$ _____

14. $4\frac{4}{6} - 2\frac{1}{2} =$ _____

5. $3\frac{10}{12} + 4\frac{3}{4} =$ _____

15. $1\frac{6}{8} - \frac{1}{4} =$ _____

6. $6\frac{6}{14} + 4\frac{5}{21} =$ _____

16. $9\frac{2}{3} - 3\frac{4}{9} =$ _____

7. $2\frac{1}{5} + 8\frac{3}{20} =$ _____

17. $\frac{6}{8} - \frac{1}{2} =$ _____

8. $8\frac{6}{8} + 9\frac{3}{4} =$ _____

18. $10\frac{9}{15} - 4\frac{1}{3} =$ _____

9. $3\frac{2}{9} + 7\frac{2}{3} =$ _____

19. $7\frac{1}{2} - 7\frac{1}{8} =$ _____

10. $10\frac{1}{2} + 7\frac{1}{10} =$ _____

20. $\frac{3}{4} - \frac{1}{8} =$ _____

Fill up the missing numerator or denominator in addition and subtraction sentences.

$$1. \frac{9}{20} + \frac{3}{20} = \frac{3}{(\quad)}$$

$$2. \frac{(\quad)}{9} + \frac{1}{9} = \frac{1}{3}$$

$$3. \frac{(\quad)}{20} + \frac{11}{20} = \frac{7}{10}$$

$$4. \frac{(\quad)}{9} + \frac{1}{9} = \frac{1}{3}$$

$$5. \frac{1}{4} + \frac{4}{8} = \frac{6}{(\quad)}$$

$$6. \frac{1}{9} + \frac{2}{9} = \frac{1}{(\quad)}$$