

Chapter 01 Fractions

Multiple Choice Questions

1. A(n) _____ fraction represents parts of a whole.
- A. equivalent
 - B. mixed
 - C. common**
 - D. improper

A common fraction represents equal parts of a whole.

ASHP: 12.1.a Explain the use of Roman numerals, Arabic numbers, fractions, decimals, and apothecary symbols.

ASHP: 28.3.a Correctly solve mathematical problems using Roman numerals, Arabic numbers, fractions, apothecary symbols, and decimals.

Blooms: Remember

CAAHEP: II.C.1 Demonstrate knowledge of basic math computations

Difficulty: 1 Easy

Learning Outcome: 1.1 Produce fractions and mixed numbers in the proper form.

Learning Outcome: 1.3 Determine the simplest form of a fraction.

Topic: Fractions and Mixed Numbers

2. The smallest number that is a common multiple of all the denominators in a group of fractions is the
- A. numerator.
 - B. least common denominator.**
 - C. equivalent fraction.
 - D. prime number.

The smallest number that is a common multiple of all the denominators in a group of fractions is the least common denominator.

ASHP: 12.1.a Explain the use of Roman numerals, Arabic numbers, fractions, decimals, and apothecary symbols.

ASHP: 28.3.a Correctly solve mathematical problems using Roman numerals, Arabic numbers, fractions, apothecary symbols, and decimals.

Blooms: Remember

CAAHEP: II.C.1 Demonstrate knowledge of basic math computations

Difficulty: 1 Easy

Learning Outcome: 1.3 Determine the simplest form of a fraction.

Learning Outcome: 1.4 Find the least common denominator.

Topic: Finding Common Denominators

3. A(n) _____ is a number other than 1 that can be evenly divided only by itself.
- A. numerator
 - B. mixed number
 - C. equivalent fraction
 - D.** prime number

Prime numbers are numbers other than 1 that can be evenly divided only by themselves.

Blooms: Remember

CAAHEP: II.C.1 Demonstrate knowledge of basic math computations

Difficulty: 1 Easy

Learning Outcome: 1.3 Determine the simplest form of a fraction.

Topic: Reducing Fractions

4. The top number on a fraction, which represents parts of the whole, is the
- A.** numerator.
 - B. least common denominator.
 - C. equivalent fraction.
 - D. denominator.

The top number on a fraction represents parts of the whole and is called the numerator.

ASHP: 12.1.a Explain the use of Roman numerals, Arabic numbers, fractions, decimals, and apothecary symbols.

ASHP: 28.3.a Correctly solve mathematical problems using Roman numerals, Arabic numbers, fractions, apothecary symbols, and decimals.

Blooms: Remember

CAAHEP: II.C.1 Demonstrate knowledge of basic math computations

Difficulty: 1 Easy

Learning Outcome: 1.1 Produce fractions and mixed numbers in the proper form.

Learning Outcome: 1.3 Determine the simplest form of a fraction.

Topic: Fractions and Mixed Numbers

5. _____ are two fractions that are written differently and have the same value.

- A. Mixed numbers
- B. Least common denominators
- C. Equivalent fractions**
- D. Prime numbers

Equivalent fractions are two fractions that are written differently and have the same value.

ASHP: 12.1.a Explain the use of Roman numerals, Arabic numbers, fractions, decimals, and apothecary symbols.

ASHP: 28.3.a Correctly solve mathematical problems using Roman numerals, Arabic numbers, fractions, apothecary symbols, and decimals.

Blooms: Remember

CAAHEP: II.C.1 Demonstrate knowledge of basic math computations

Difficulty: 1 Easy

Learning Outcome: 1.2 Identify and produce equivalent fractions.

Learning Outcome: 1.3 Determine the simplest form of a fraction.

Topic: Equivalent Fractions

6. The bottom number of a fraction, which represents the whole, is the

- A. numerator.
- B. least common denominator.
- C. equivalent fractions.
- D. denominator.**

The bottom number of a fraction represents the whole and is called the denominator.

ASHP: 12.1.a Explain the use of Roman numerals, Arabic numbers, fractions, decimals, and apothecary symbols.

ASHP: 28.3.a Correctly solve mathematical problems using Roman numerals, Arabic numbers, fractions, apothecary symbols, and decimals.

Blooms: Remember

CAAHEP: II.C.1 Demonstrate knowledge of basic math computations

Difficulty: 1 Easy

Learning Outcome: 1.1 Produce fractions and mixed numbers in the proper form.

Learning Outcome: 1.3 Determine the simplest form of a fraction.

Topic: Fractions and Mixed Numbers

Chapter 01 - Fractions

7. A(n) _____ combines a whole number with a fraction.

- A. numerator
- B. least common denominator
- C. equivalent fraction
- D. mixed number**

A mixed number combines a whole number with a fraction.

ASHP: 12.1.a Explain the use of Roman numerals, Arabic numbers, fractions, decimals, and apothecary symbols.

ASHP: 28.3.a Correctly solve mathematical problems using Roman numerals, Arabic numbers, fractions, apothecary symbols, and decimals.

Blooms: Remember

CAAHEP: II.C.1 Demonstrate knowledge of basic math computations

Difficulty: 1 Easy

Learning Outcome: 1.1 Produce fractions and mixed numbers in the proper form.

Learning Outcome: 1.3 Determine the simplest form of a fraction.

Topic: Fractions and Mixed Numbers

8. To reduce a fraction to its lowest terms, find the largest _____ that divides evenly into both the numerator and denominator.

- A. mixed number
- B. whole number**
- C. prime number
- D. proper fraction

To reduce a fraction to its lowest terms, find the largest whole number that divides evenly into both the numerator and denominator.

ASHP: 12.1.a Explain the use of Roman numerals, Arabic numbers, fractions, decimals, and apothecary symbols.

ASHP: 28.3.a Correctly solve mathematical problems using Roman numerals, Arabic numbers, fractions, apothecary symbols, and decimals.

Blooms: Remember

CAAHEP: II.C.1 Demonstrate knowledge of basic math computations

Difficulty: 1 Easy

Learning Outcome: 1.3 Determine the simplest form of a fraction.

Topic: Reducing Fractions

Chapter 01 - Fractions

9. $\frac{4}{5} + 1\frac{5}{6} =$ _____ (reduce to lowest terms)

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

B. $2\frac{4}{5}$

C. $2\frac{19}{30}$

D. $2\frac{9}{11}$

$$\frac{4}{5} = \frac{24}{30}$$

$$1\frac{5}{6} = \frac{11}{6} = \frac{55}{30}$$

$$\frac{24}{30} + \frac{55}{30} = \frac{79}{30} = 2\frac{19}{30}$$

ASHP: 12.1.a Explain the use of Roman numerals, Arabic numbers, fractions, decimals, and apothecary symbols.

ASHP: 28.3.a Correctly solve mathematical problems using Roman numerals, Arabic numbers, fractions, apothecary symbols, and decimals.

Blooms: Apply

CAAHEP: II.C.1 Demonstrate knowledge of basic math computations

CAAHEP: II.C.2 Apply mathematical computations to solve equations

Difficulty: 2 Medium

Learning Outcome: 1.6 Add fractions.

Topic: Adding Fractions

Chapter 01 - Fractions

10. $\frac{3}{4} + \frac{6}{8} + 2\frac{2}{8} =$ _____ (reduce to lowest terms)

- A.** $3\frac{3}{4}$
B. $3\frac{6}{8}$
C. $2\frac{11}{12}$
D. $2\frac{5}{6}$

$$\frac{3}{4} = \frac{6}{8}$$

$$\frac{6}{8} = \frac{6}{8}$$

$$2\frac{2}{8} = \frac{18}{8}$$

$$\frac{6}{8} + \frac{6}{8} + \frac{18}{8} = \frac{30}{8} = 3\frac{6}{8} = 3\frac{3}{4}$$

ASHP: 12.1.a Explain the use of Roman numerals, Arabic numbers, fractions, decimals, and apothecary symbols.

ASHP: 28.3.a Correctly solve mathematical problems using Roman numerals, Arabic numbers, fractions, apothecary symbols, and decimals.

Blooms: Apply

CAAHEP: II.C.1 Demonstrate knowledge of basic math computations

CAAHEP: II.C.2 Apply mathematical computations to solve equations

Difficulty: 2 Medium

Learning Outcome: 1.6 Add fractions.

Topic: Adding Fractions

Chapter 01 - Fractions

11. $5\frac{6}{8} - 2\frac{2}{3} =$ _____ (reduce to lowest terms)

A. $3\frac{8}{11}$

B. $3\frac{4}{5}$

C. $3\frac{1}{12}$

D. $3\frac{1}{6}$

$$5\frac{6}{8} = \frac{46}{8} = \frac{138}{24}$$

$$2\frac{2}{3} = \frac{8}{3} = \frac{64}{24}$$

$$\frac{138}{24} - \frac{64}{24} = 3\frac{2}{24} = 3\frac{1}{12}$$

ASHP: 12.1.a Explain the use of Roman numerals, Arabic numbers, fractions, decimals, and apothecary symbols.

ASHP: 28.3.a Correctly solve mathematical problems using Roman numerals, Arabic numbers, fractions, apothecary symbols, and decimals.

Blooms: Apply

CAAHEP: II.C.1 Demonstrate knowledge of basic math computations

CAAHEP: II.C.2 Apply mathematical computations to solve equations

Difficulty: 2 Medium

Learning Outcome: 1.7 Subtract fractions.

Topic: Subtracting Fractions

Chapter 01 - Fractions

12. $15\frac{3}{4} - 5 =$ _____ (reduce to lowest terms)

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

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

C. $10\frac{3}{4}$

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

$$15\frac{3}{4} = \frac{63}{4}$$

$$5 = \frac{5}{1} = \frac{20}{4}$$

$$\frac{63}{4} - \frac{20}{4} = \frac{43}{4} = 10\frac{3}{4}$$

ASHP: 12.1.a Explain the use of Roman numerals, Arabic numbers, fractions, decimals, and apothecary symbols.

ASHP: 28.3.a Correctly solve mathematical problems using Roman numerals, Arabic numbers, fractions, apothecary symbols, and decimals.

Blooms: Apply

CAAHEP: II.C.1 Demonstrate knowledge of basic math computations

CAAHEP: II.C.2 Apply mathematical computations to solve equations

Difficulty: 2 Medium

Learning Outcome: 1.7 Subtract fractions.

Topic: Subtracting Fractions

13. $\frac{3}{5} \times \frac{2}{8} =$ _____ (reduce to lowest terms)

A. $\frac{3}{20}$

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

C. 1

D. $\frac{1}{8}$

$$\frac{3}{5} \times \frac{2}{8} = \frac{6}{40} = \frac{3}{20}$$

ASHP: 12.1.a Explain the use of Roman numerals, Arabic numbers, fractions, decimals, and apothecary symbols.

ASHP: 28.3.a Correctly solve mathematical problems using Roman numerals, Arabic numbers, fractions, apothecary symbols, and decimals.

Blooms: Apply

CAAHEP: II.C.1 Demonstrate knowledge of basic math computations

CAAHEP: II.C.2 Apply mathematical computations to solve equations

Difficulty: 2 Medium

Learning Outcome: 1.8 Multiply fractions.

Topic: Multiplying Fractions

Chapter 01 - Fractions

14. $1\frac{1}{2} \times \frac{2}{3} =$ _____ (reduce to lowest terms)

A. $1\frac{2}{6}$

B. 2

C. 1

D. $1\frac{3}{5}$

$$1\frac{1}{2} = \frac{3}{2} \times \frac{2}{3} = \frac{6}{6} = 1$$

ASHP: 12.1.a Explain the use of Roman numerals, Arabic numbers, fractions, decimals, and apothecary symbols.

ASHP: 28.3.a Correctly solve mathematical problems using Roman numerals, Arabic numbers, fractions, apothecary symbols, and decimals.

Blooms: Apply

CAAHEP: II.C.1 Demonstrate knowledge of basic math computations

CAAHEP: II.C.2 Apply mathematical computations to solve equations

Difficulty: 2 Medium

Learning Outcome: 1.8 Multiply fractions.

Topic: Multiplying Fractions

15. $\frac{4}{5} \div \frac{2}{3} =$ _____ (reduce to lowest terms)

A. $\frac{8}{15}$

B. $\frac{6}{8}$

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

D. $1\frac{3}{4}$

$$\frac{4}{5} \div \frac{2}{3} = \frac{4}{5} \times \frac{3}{2} = \frac{12}{10} = 1\frac{2}{10} = 1\frac{1}{5}$$

ASHP: 12.1.a Explain the use of Roman numerals, Arabic numbers, fractions, decimals, and apothecary symbols.

ASHP: 28.3.a Correctly solve mathematical problems using Roman numerals, Arabic numbers, fractions, apothecary symbols, and decimals.

Blooms: Apply

CAAHEP: II.C.1 Demonstrate knowledge of basic math computations

CAAHEP: II.C.2 Apply mathematical computations to solve equations

Difficulty: 2 Medium

Learning Outcome: 1.9 Divide fractions.

Topic: Dividing Fractions

Chapter 01 - Fractions

16. $4\frac{3}{8} \div 1\frac{1}{2} =$ _____ (reduce to lowest terms)

A. 3

B. $2\frac{4}{10}$

C. $2\frac{1}{6}$

D. $2\frac{11}{12}$

$$4\frac{3}{8} = \frac{35}{8}$$

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

$$\frac{35}{8} \div \frac{3}{2} = \frac{35}{8} \times \frac{2}{3} = \frac{70}{24} = 2\frac{22}{24} = 2\frac{11}{12}$$

ASHP: 12.1.a Explain the use of Roman numerals, Arabic numbers, fractions, decimals, and apothecary symbols.

ASHP: 28.3.a Correctly solve mathematical problems using Roman numerals, Arabic numbers, fractions, apothecary symbols, and decimals.

Blooms: Apply

CAAHEP: II.C.1 Demonstrate knowledge of basic math computations

CAAHEP: II.C.2 Apply mathematical computations to solve equations

Difficulty: 2 Medium

Learning Outcome: 1.9 Divide fractions.

Topic: Dividing Fractions

17. The least common denominator for $\frac{6}{10}$, $\frac{5}{8}$, $\frac{3}{4}$, and $\frac{1}{2}$ is

A. 12.

B. 40.

C. 32.

D. 80.

40 is the smallest number all the denominators will divide into equally.

ASHP: 12.1.a Explain the use of Roman numerals, Arabic numbers, fractions, decimals, and apothecary symbols.

ASHP: 28.3.a Correctly solve mathematical problems using Roman numerals, Arabic numbers, fractions, apothecary symbols, and decimals.

Blooms: Apply

CAAHEP: II.C.1 Demonstrate knowledge of basic math computations

CAAHEP: II.C.2 Apply mathematical computations to solve equations

Difficulty: 2 Medium

Learning Outcome: 1.4 Find the least common denominator.

Topic: Finding Common Denominators

18. What is the least common denominator for $\frac{5}{6}$, $\frac{5}{3}$, and $\frac{3}{4}$?

- A. 24
- B. 48
- C. 20
- D. 12**

12 is the smallest number all the denominators will divide into equally.

ASHP: 12.1.a Explain the use of Roman numerals, Arabic numbers, fractions, decimals, and apothecary symbols.

ASHP: 28.3.a Correctly solve mathematical problems using Roman numerals, Arabic numbers, fractions, apothecary symbols, and decimals.

Blooms: Apply

CAAHEP: II.C.1 Demonstrate knowledge of basic math computations

CAAHEP: II.C.2 Apply mathematical computations to solve equations

Difficulty: 1 Easy

Learning Outcome: 1.4 Find the least common denominator.

Topic: Finding Common Denominators

19. The missing numerator for $\frac{5}{6} = \frac{x}{12}$ is

- A. 8.
- B. 6.
- C. 10.**
- D. 11.

Multiply the original numerator by the denominator of the new fraction and divide the product by the original denominator:

$$5 \times 12 = 60$$

$$60 \div 6 = 10$$

ASHP: 12.1.a Explain the use of Roman numerals, Arabic numbers, fractions, decimals, and apothecary symbols.

ASHP: 28.3.a Correctly solve mathematical problems using Roman numerals, Arabic numbers, fractions, apothecary symbols, and decimals.

Blooms: Apply

CAAHEP: II.C.1 Demonstrate knowledge of basic math computations

Difficulty: 1 Easy

Learning Outcome: 1.2 Identify and produce equivalent fractions.

Topic: Equivalent Fractions

20. The sum of $2\frac{1}{3} + \frac{3}{10} + \frac{4}{9}$ written in the proper form and reduced to lowest terms is

- ____.
- A. $\frac{277}{90}$
B. $3\frac{7}{90}$
 C. $3\frac{7}{9}$
 D. $9\frac{3}{7}$

LCD = 90, so $2\frac{1}{3} + \frac{3}{10} + \frac{4}{9} = \frac{210}{90} + \frac{27}{90} + \frac{40}{90} = \frac{277}{90}$, which equals $3\frac{7}{90}$ in proper form.

ASHP: 12.1.a Explain the use of Roman numerals, Arabic numbers, fractions, decimals, and apothecary symbols.

ASHP: 28.3.a Correctly solve mathematical problems using Roman numerals, Arabic numbers, fractions, apothecary symbols, and decimals.

Blooms: Apply

CAAHEP: II.C.1 Demonstrate knowledge of basic math computations

CAAHEP: II.C.2 Apply mathematical computations to solve equations

Difficulty: 3 Hard

Learning Outcome: 1.6 Add fractions.

Topic: Adding Fractions

21. $\frac{9}{10} \times 1\frac{3}{4} =$ _____ (in proper form and reduced to lowest terms)

- A. $\frac{108}{40}$
 B. $2\frac{28}{40}$
C. $1\frac{23}{40}$
 D. $\frac{17}{14}$

$$\frac{9}{10} \times 1\frac{3}{4} = \frac{9}{10} \times \frac{7}{4} = \frac{63}{40} = 1\frac{23}{40}$$

ASHP: 12.1.a Explain the use of Roman numerals, Arabic numbers, fractions, decimals, and apothecary symbols.

ASHP: 28.3.a Correctly solve mathematical problems using Roman numerals, Arabic numbers, fractions, apothecary symbols, and decimals.

Blooms: Apply

CAAHEP: II.C.1 Demonstrate knowledge of basic math computations

CAAHEP: II.C.2 Apply mathematical computations to solve equations

Difficulty: 2 Medium

Learning Outcome: 1.8 Multiply fractions.

Topic: Multiplying Fractions

Chapter 01 - Fractions

22. $2\frac{2}{6} - \frac{4}{6} =$ _____ (in proper form and reduced to lowest terms)

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

$$2\frac{2}{6} - \frac{4}{6} = \frac{14}{6} - \frac{4}{6} = \frac{10}{6} = 1\frac{4}{6} = 1\frac{2}{3}$$

ASHP: 12.1.a Explain the use of Roman numerals, Arabic numbers, fractions, decimals, and apothecary symbols.

ASHP: 28.3.a Correctly solve mathematical problems using Roman numerals, Arabic numbers, fractions, apothecary symbols, and decimals.

Blooms: Apply

CAAHEP: II.C.1 Demonstrate knowledge of basic math computations

CAAHEP: II.C.2 Apply mathematical computations to solve equations

Difficulty: 1 Easy

Learning Outcome: 1.7 Subtract fractions.

Topic: Subtracting Fractions

23. $\frac{1}{3} - \frac{1}{4} =$ _____ (in proper form and reduced to lowest terms)

- A. 0
B. $\frac{1}{2}$
C. $\frac{2}{12}$
D. $\frac{1}{12}$

$$\frac{1}{3} - \frac{1}{4} = \frac{4}{12} - \frac{3}{12} = \frac{1}{12}$$

ASHP: 12.1.a Explain the use of Roman numerals, Arabic numbers, fractions, decimals, and apothecary symbols.

ASHP: 28.3.a Correctly solve mathematical problems using Roman numerals, Arabic numbers, fractions, apothecary symbols, and decimals.

Blooms: Apply

CAAHEP: II.C.1 Demonstrate knowledge of basic math computations

CAAHEP: II.C.2 Apply mathematical computations to solve equations

Difficulty: 1 Easy

Learning Outcome: 1.7 Subtract fractions.

Topic: Subtracting Fractions

Chapter 01 - Fractions

24. $\frac{8}{9} \div \frac{1}{4} = \underline{\hspace{1cm}}$ (in proper form and reduced to lowest terms)

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

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

C. $3\frac{5}{9}$

D. $\frac{2}{9}$

$$\frac{8}{9} \div \frac{1}{4} = \frac{8}{9} \times \frac{4}{1} = \frac{32}{9} = 3\frac{5}{9}$$

ASHP: 12.1.a Explain the use of Roman numerals, Arabic numbers, fractions, decimals, and apothecary symbols.

ASHP: 28.3.a Correctly solve mathematical problems using Roman numerals, Arabic numbers, fractions, apothecary symbols, and decimals.

Blooms: Apply

CAAHEP: II.C.1 Demonstrate knowledge of basic math computations

CAAHEP: II.C.2 Apply mathematical computations to solve equations

Difficulty: 1 Easy

Learning Outcome: 1.9 Divide fractions.

Topic: Dividing Fractions

25. Which of the following is an equivalent fraction for $\frac{7}{8}$?

A. $\frac{14}{24}$

B. $\frac{14}{32}$

C. $\frac{21}{24}$

D. $\frac{28}{48}$

$$7 \times 3 = 21; 8 \times 3 = 24$$

ASHP: 12.1.a Explain the use of Roman numerals, Arabic numbers, fractions, decimals, and apothecary symbols.

ASHP: 28.3.a Correctly solve mathematical problems using Roman numerals, Arabic numbers, fractions, apothecary symbols, and decimals.

Blooms: Apply

CAAHEP: II.C.1 Demonstrate knowledge of basic math computations

CAAHEP: II.C.2 Apply mathematical computations to solve equations

Difficulty: 2 Medium

Learning Outcome: 1.3 Determine the simplest form of a fraction.

Topic: Reducing Fractions

26. Which of the following is an equivalent fraction for $\frac{13}{19}$?

- A. $\frac{26}{19}$
- B. $\frac{26}{57}$
- C. $\frac{39}{38}$
- D. $\frac{39}{57}$**

$$13 \times 3 = 39; 19 \times 3 = 57$$

ASHP: 12.1.a Explain the use of Roman numerals, Arabic numbers, fractions, decimals, and apothecary symbols.

ASHP: 28.3.a Correctly solve mathematical problems using Roman numerals, Arabic numbers, fractions, apothecary symbols, and decimals.

Blooms: Apply

CAAHEP: II.C.1 Demonstrate knowledge of basic math computations

CAAHEP: II.C.2 Apply mathematical computations to solve equations

Difficulty: 2 Medium

Learning Outcome: 1.3 Determine the simplest form of a fraction.

Topic: Reducing Fractions

27. On the advice of his physician, a patient purchases a bottle of over-the-counter cough syrup to treat the cough associated with his cold. The bottle contains 16 tablespoons (tbsp) of medication, and 1 dose of the medication is $1\frac{1}{2}$ tbsp. After the patient takes 3 doses of the medication, how many tablespoons of medication are left in the bottle?

- A. 12 tbsp
- B. $11\frac{1}{2}$ tbsp**
- C. $9\frac{1}{2}$ tbsp
- D. 9 tbsp

$$\text{Three doses} = 1\frac{1}{2} \text{ tbsp} \times 3 = 4\frac{1}{2} \text{ tbsp}$$

$$16 \text{ tbsp} - 4\frac{1}{2} \text{ tbsp} = 11\frac{1}{2} \text{ tbsp}$$

ASHP: 12.1.a Explain the use of Roman numerals, Arabic numbers, fractions, decimals, and apothecary symbols.

ASHP: 28.3.a Correctly solve mathematical problems using Roman numerals, Arabic numbers, fractions, apothecary symbols, and decimals.

Blooms: Apply

CAAHEP: II.C.1 Demonstrate knowledge of basic math computations

CAAHEP: II.C.2 Apply mathematical computations to solve equations

Difficulty: 2 Medium

Learning Outcome: 1.7 Subtract fractions.

Learning Outcome: 1.8 Multiply fractions.

Topic: Multiplying Fractions

Topic: Subtracting Fractions

28. An elderly patient on a weight-gain diet weighed $97\frac{1}{2}$ pounds (lb) on admission to the retirement home. She was then weighed at 1-week intervals. During the first week she gained $2\frac{1}{4}$ pounds, during the next week she gained $1\frac{2}{3}$ pounds, and during the following week she gained $3\frac{1}{2}$ pounds. How much did the patient weigh at the end of the 3 weeks?
- A. $103\frac{1}{2}$ lb
 B. $104\frac{2}{5}$ lb
C. $104\frac{11}{12}$ lb
 D. $105\frac{1}{4}$ lb

First find out how much weight the patient gained:

$$2\frac{1}{4} \text{ lb} + 1\frac{2}{3} \text{ lb} + 3\frac{1}{2} \text{ lb} \\ = 2\frac{3}{12} \text{ lb} + 1\frac{8}{12} \text{ lb} + 3\frac{6}{12} \text{ lb} = 6\frac{17}{12} \text{ lb} = 7\frac{5}{12} \text{ lb}$$

Then add the total weight gain to the patient's original weight:

$$7\frac{5}{12} \text{ lb} + 97\frac{1}{2} \text{ lb} = 7\frac{5}{12} \text{ lb} + 97\frac{6}{12} \text{ lb} = 104\frac{11}{12} \text{ lb}$$

ASHP: 12.1.a Explain the use of Roman numerals, Arabic numbers, fractions, decimals, and apothecary symbols.

ASHP: 28.3.a Correctly solve mathematical problems using Roman numerals, Arabic numbers, fractions, apothecary symbols, and decimals.

Blooms: Apply

CAAHEP: II.C.1 Demonstrate knowledge of basic math computations

CAAHEP: II.C.2 Apply mathematical computations to solve equations

Difficulty: 3 Hard

Learning Outcome: 1.6 Add fractions.

Topic: Adding Fractions

Fill in the Blank Questions

29. Convert $\frac{95}{25}$ to a mixed number: _____ (reduce to lowest terms)

If the answer results in a mixed number be sure to include a space between the whole number and the fraction. Example: 1 1/4 (read as one and one-fourth).

3 4/5

$$\frac{95}{25} = 95 \div 25 = 3 \frac{20}{25} = 3 \frac{4}{5}$$

ASHP: 12.1.a Explain the use of Roman numerals, Arabic numbers, fractions, decimals, and apothecary symbols.

ASHP: 28.3.a Correctly solve mathematical problems using Roman numerals, Arabic numbers, fractions, apothecary symbols, and decimals.

Blooms: Apply

CAAHEP: II.C.1 Demonstrate knowledge of basic math computations

CAAHEP: II.C.2 Apply mathematical computations to solve equations

Difficulty: 1 Easy

Learning Outcome: 1.1 Produce fractions and mixed numbers in the proper form.

Topic: Fractions and Mixed Numbers

30.

Convert $\frac{57}{13}$ to a mixed number: _____ (reduce to lowest terms)

If the answer results in a mixed number be sure to include a space between the whole number and the fraction. Example: 1 1/4 (read as one and one-fourth).

4 5/13

$$\frac{57}{13} = 57 \div 13 = 4 \frac{5}{13}$$

ASHP: 12.1.a Explain the use of Roman numerals, Arabic numbers, fractions, decimals, and apothecary symbols.

ASHP: 28.3.a Correctly solve mathematical problems using Roman numerals, Arabic numbers, fractions, apothecary symbols, and decimals.

Blooms: Apply

CAAHEP: II.C.1 Demonstrate knowledge of basic math computations

CAAHEP: II.C.2 Apply mathematical computations to solve equations

Difficulty: 1 Easy

Learning Outcome: 1.1 Produce fractions and mixed numbers in the proper form.

Topic: Fractions and Mixed Numbers

31.

Convert $24\frac{3}{8}$ to a fraction: _____

If the answer results in a mixed number be sure to include a space between the whole number and the fraction. Example: 1 1/4 (read as one and one-fourth).

195/8

$$24\frac{3}{8} = ((24 \times 8) + 3) \div 8 = \frac{195}{8}$$

ASHP: 12.1.a Explain the use of Roman numerals, Arabic numbers, fractions, decimals, and apothecary symbols.

ASHP: 28.3.a Correctly solve mathematical problems using Roman numerals, Arabic numbers, fractions, apothecary symbols, and decimals.

Blooms: Apply

CAAHEP: II.C.1 Demonstrate knowledge of basic math computations

CAAHEP: II.C.2 Apply mathematical computations to solve equations

Difficulty: 1 Easy

Learning Outcome: 1.1 Produce fractions and mixed numbers in the proper form.

Topic: Fractions and Mixed Numbers

Chapter 01 - Fractions

32.

Convert $\frac{73}{8}$ to a mixed number: _____ (reduce to lowest terms)

If the answer results in a mixed number be sure to include a space between the whole number and the fraction. Example: 1 1/4 (read as one and one-fourth).

9 1/8

$$\frac{73}{8} = 73 \div 8 = 9\frac{1}{8}$$

ASHP: 12.1.a Explain the use of Roman numerals, Arabic numbers, fractions, decimals, and apothecary symbols.

ASHP: 28.3.a Correctly solve mathematical problems using Roman numerals, Arabic numbers, fractions, apothecary symbols, and decimals.

Blooms: Apply

CAAHEP: II.C.1 Demonstrate knowledge of basic math computations

CAAHEP: II.C.2 Apply mathematical computations to solve equations

Difficulty: 1 Easy

Learning Outcome: 1.1 Produce fractions and mixed numbers in the proper form.

Topic: Fractions and Mixed Numbers

Chapter 01 - Fractions

33.

Find the missing numerator in $\frac{7}{8} = \frac{x}{32}$. $x =$ _____

28

Multiply the original numerator by the denominator of the new fraction and divide the product by the original denominator:

$$7 \times 32 = 244$$

$$244 \div 8 = 28$$

ASHP: 12.1.a Explain the use of Roman numerals, Arabic numbers, fractions, decimals, and apothecary symbols.

ASHP: 28.3.a Correctly solve mathematical problems using Roman numerals, Arabic numbers, fractions, apothecary symbols, and decimals.

Blooms: Apply

CAAHEP: II.C.1 Demonstrate knowledge of basic math computations

CAAHEP: II.C.2 Apply mathematical computations to solve equations

Difficulty: 2 Medium

Learning Outcome: 1.2 Identify and produce equivalent fractions.

Topic: Equivalent Fractions

Chapter 01 - Fractions

34.

Find the missing numerator in $6\frac{2}{3} = \frac{x}{18}$. $x =$ _____

120

Convert the mixed fraction: $6\frac{2}{3} = \frac{20}{3}$. Multiply the original numerator by the denominator of the new fraction and divide the product by the original denominator:

$$20 \times 18 = 360$$

$$360 \div 3 = 120$$

ASHP: 12.1.a Explain the use of Roman numerals, Arabic numbers, fractions, decimals, and apothecary symbols.

ASHP: 28.3.a Correctly solve mathematical problems using Roman numerals, Arabic numbers, fractions, apothecary symbols, and decimals.

Blooms: Apply

CAAHEP: II.C.1 Demonstrate knowledge of basic math computations

CAAHEP: II.C.2 Apply mathematical computations to solve equations

Difficulty: 2 Medium

Learning Outcome: 1.2 Identify and produce equivalent fractions.

35.

The least common denominator of $1\frac{2}{3}$ and $2\frac{3}{4}$ is _____.

12

12 is the smallest multiple of both 3 and 4.

ASHP: 12.1.a Explain the use of Roman numerals, Arabic numbers, fractions, decimals, and apothecary symbols.

ASHP: 28.3.a Correctly solve mathematical problems using Roman numerals, Arabic numbers, fractions, apothecary symbols, and decimals.

Blooms: Apply

CAAHEP: II.C.1 Demonstrate knowledge of basic math computations

CAAHEP: II.C.2 Apply mathematical computations to solve equations

Difficulty: 2 Medium

Learning Outcome: 1.4 Find the least common denominator.

Topic: Finding Common Denominators

36.

The least common denominator of $\frac{4}{7}$ and $\frac{6}{8}$ is _____.

56

56 is the smallest multiple of both 7 and 8.

ASHP: 12.1.a Explain the use of Roman numerals, Arabic numbers, fractions, decimals, and apothecary symbols.

ASHP: 28.3.a Correctly solve mathematical problems using Roman numerals, Arabic numbers, fractions, apothecary symbols, and decimals.

Blooms: Apply

CAAHEP: II.C.1 Demonstrate knowledge of basic math computations

CAAHEP: II.C.2 Apply mathematical computations to solve equations

Difficulty: 2 Medium

Learning Outcome: 1.4 Find the least common denominator.

Topic: Finding Common Denominators

37. Insert >, <, or = to make a true statement: $2\frac{4}{5}$ _____ $2\frac{3}{6}$.

\geq

$$2\frac{4}{5} = \frac{84}{30}$$

$$2\frac{3}{6} = \frac{75}{30}$$

$\frac{84}{30}$ is larger than $\frac{75}{30}$

ASHP: 12.1.a Explain the use of Roman numerals, Arabic numbers, fractions, decimals, and apothecary symbols.

ASHP: 28.3.a Correctly solve mathematical problems using Roman numerals, Arabic numbers, fractions, apothecary symbols, and decimals.

Blooms: Apply

CAAHEP: II.C.1 Demonstrate knowledge of basic math computations

CAAHEP: II.C.2 Apply mathematical computations to solve equations

Difficulty: 2 Medium

Learning Outcome: 1.2 Identify and produce equivalent fractions.

Learning Outcome: 1.5 Compare the values of fractions.

Topic: Comparing Fractions

38.

The sum of $4 + \frac{11}{13} =$ _____. Write the answer as a mixed number reduced to lowest terms.

If the answer results in a mixed number be sure to include a space between the whole number and the fraction. Example: 1 1/4 (read as one and one-fourth).

4 11/13

No conversions necessary. Add the fraction to the whole number:

$$4 + \frac{11}{13} = 4\frac{11}{13}$$

ASHP: 12.1.a Explain the use of Roman numerals, Arabic numbers, fractions, decimals, and apothecary symbols.

ASHP: 28.3.a Correctly solve mathematical problems using Roman numerals, Arabic numbers, fractions, apothecary symbols, and decimals.

Blooms: Apply

CAAHEP: II.C.1 Demonstrate knowledge of basic math computations

CAAHEP: II.C.2 Apply mathematical computations to solve equations

Difficulty: 2 Medium

Learning Outcome: 1.6 Add fractions.

Topic: Adding Fractions

39.

The sum of $\frac{2}{3} + \frac{8}{9} =$ _____. Write the answer as a mixed number reduced to lowest terms.

If the answer results in a mixed number be sure to include a space between the whole number and the fraction. Example: 1 1/4 (read as one and one-fourth).

1 5/9

$$\frac{2}{3} = \frac{6}{9}$$

$$\frac{6}{9} + \frac{8}{9} = \frac{14}{9} = 1 \frac{5}{9}$$

ASHP: 12.1.a Explain the use of Roman numerals, Arabic numbers, fractions, decimals, and apothecary symbols.

ASHP: 28.3.a Correctly solve mathematical problems using Roman numerals, Arabic numbers, fractions, apothecary symbols, and decimals.

Blooms: Apply

CAAHEP: II.C.1 Demonstrate knowledge of basic math computations

CAAHEP: II.C.2 Apply mathematical computations to solve equations

Difficulty: 2 Medium

Learning Outcome: 1.6 Add fractions.

Topic: Adding Fractions

40.

The sum of $\frac{4}{5} + \frac{11}{15} =$ _____. Write the answer as a mixed number reduced to lowest terms.

If the answer results in a mixed number be sure to include a space between the whole number and the fraction. Example: 1 1/4 (read as one and one-fourth).

1 8/15

$$\frac{4}{5} = \frac{12}{15}$$

$$\frac{12}{15} + \frac{11}{15} = \frac{23}{15} = 1 \frac{8}{15}$$

ASHP: 12.1.a Explain the use of Roman numerals, Arabic numbers, fractions, decimals, and apothecary symbols.

ASHP: 28.3.a Correctly solve mathematical problems using Roman numerals, Arabic numbers, fractions, apothecary symbols, and decimals.

Blooms: Apply

CAAHEP: II.C.1 Demonstrate knowledge of basic math computations

CAAHEP: II.C.2 Apply mathematical computations to solve equations

Difficulty: 2 Medium

Learning Outcome: 1.6 Add fractions.

Topic: Adding Fractions

Chapter 01 - Fractions

41.

$$\frac{15}{22} - \frac{6}{22} = \underline{\hspace{2cm}}.$$

If the answer results in a mixed number be sure to include a space between the whole number and the fraction. Example: 1 1/4 (read as one and one-fourth).

9/22

No conversions necessary. Subtract the numerators ($15 - 6 = 9$); denominators do not change.

ASHP: 12.1.a Explain the use of Roman numerals, Arabic numbers, fractions, decimals, and apothecary symbols.

ASHP: 28.3.a Correctly solve mathematical problems using Roman numerals, Arabic numbers, fractions, apothecary symbols, and decimals.

Blooms: Apply

CAAHEP: II.C.1 Demonstrate knowledge of basic math computations

CAAHEP: II.C.2 Apply mathematical computations to solve equations

Difficulty: 1 Easy

Learning Outcome: 1.7 Subtract fractions.

Topic: Subtracting Fractions

Chapter 01 - Fractions

42.

$$13\frac{8}{17} - 10\frac{8}{17} = \underline{\hspace{2cm}}.$$

3

No conversion is necessary because both the fractions have the same numerator. Subtract the fractions:

$$\frac{8}{17} - \frac{8}{17} = 0$$

Subtract the whole numbers:

$$13 - 10 = 3$$

$$0 + 3 = 3$$

ASHP: 12.1.a Explain the use of Roman numerals, Arabic numbers, fractions, decimals, and apothecary symbols.

ASHP: 28.3.a Correctly solve mathematical problems using Roman numerals, Arabic numbers, fractions, apothecary symbols, and decimals.

Blooms: Apply

CAAHEP: II.C.1 Demonstrate knowledge of basic math computations

CAAHEP: II.C.2 Apply mathematical computations to solve equations

Difficulty: 1 Easy

Learning Outcome: 1.7 Subtract fractions.

Topic: Subtracting Fractions

43.

$$6\frac{6}{7} - 4\frac{13}{14} = \underline{\hspace{2cm}}. \text{ Write the answer as a mixed number reduced to lowest terms.}$$

If the answer results in a mixed number be sure to include a space between the whole number and the fraction. Example: 1 1/4 (read as one and one-fourth).

1 13/14

$$\begin{aligned} 6\frac{6}{7} &= \frac{48}{7} = \frac{96}{14} \\ 4\frac{13}{14} &= \frac{69}{14} \\ \frac{96}{14} - \frac{69}{14} &= \frac{27}{14} = 1\frac{13}{14} \end{aligned}$$

ASHP: 12.1.a Explain the use of Roman numerals, Arabic numbers, fractions, decimals, and apothecary symbols.

ASHP: 28.3.a Correctly solve mathematical problems using Roman numerals, Arabic numbers, fractions, apothecary symbols, and decimals.

Blooms: Apply

CAAHEP: II.C.1 Demonstrate knowledge of basic math computations

CAAHEP: II.C.2 Apply mathematical computations to solve equations

Difficulty: 2 Medium

Learning Outcome: 1.7 Subtract fractions.

Topic: Subtracting Fractions

Worksheet Questions

44. The patient's chart indicates that he weighed 175 pounds at the end of September. He then gained $2\frac{1}{2}$ pounds in October and lost $\frac{3}{4}$ pound in November. He weighed _____ at the end of November.

If the answer results in a mixed number be sure to include a space between the whole number and the fraction. Example: 1 1/4 (read as one and one-fourth).

176 3/4 pounds

ASHP: 12.1.a Explain the use of Roman numerals, Arabic numbers, fractions, decimals, and apothecary symbols.

Chapter 01 - Fractions

ASHP: 28.3.a Correctly solve mathematical problems using Roman numerals, Arabic numbers, fractions, apothecary symbols, and decimals.

Blooms: Apply

CAAHEP: II.C.1 Demonstrate knowledge of basic math computations

CAAHEP: II.C.2 Apply mathematical computations to solve equations

Difficulty: 3 Hard

Learning Outcome: 1.6 Add fractions.

Learning Outcome: 1.7 Subtract fractions.

Topic: Adding Fractions

Topic: Subtracting Fractions

Fill in the Blank Questions

45.

$$\frac{5}{8} \times \frac{3}{4} = \underline{\hspace{2cm}}$$

If the answer results in a mixed number be sure to include a space between the whole number and the fraction. Example: 1 1/4 (read as one and one-fourth).

15/32

$$\frac{5 \times 3}{8 \times 4} = \frac{15}{32}$$

ASHP: 12.1.a Explain the use of Roman numerals, Arabic numbers, fractions, decimals, and apothecary symbols.

ASHP: 28.3.a Correctly solve mathematical problems using Roman numerals, Arabic numbers, fractions, apothecary symbols, and decimals.

Blooms: Apply

CAAHEP: II.C.1 Demonstrate knowledge of basic math computations

CAAHEP: II.C.2 Apply mathematical computations to solve equations

Difficulty: 1 Easy

Learning Outcome: 1.8 Multiply fractions.

Topic: Multiplying Fractions

46.

$$\frac{2}{3} \times \frac{1}{3} \times \frac{1}{2} = \underline{\hspace{2cm}}. \text{ Reduce the answer to the lowest terms.}$$

If the answer results in a mixed number be sure to include a space between the whole number and the fraction. Example: 1 1/4 (read as one and one-fourth).

1/9

$$\frac{2 \times 1 \times 1}{3 \times 3 \times 2} = \frac{2}{18} = \frac{1}{9}$$

ASHP: 12.1.a Explain the use of Roman numerals, Arabic numbers, fractions, decimals, and apothecary symbols.

ASHP: 28.3.a Correctly solve mathematical problems using Roman numerals, Arabic numbers, fractions, apothecary symbols, and decimals.

Blooms: Apply

CAAHEP: II.C.1 Demonstrate knowledge of basic math computations

CAAHEP: II.C.2 Apply mathematical computations to solve equations

Difficulty: 2 Medium

Learning Outcome: 1.8 Multiply fractions.

Topic: Multiplying Fractions

47.

$$2\frac{1}{6} \times 3\frac{2}{3} = \underline{\hspace{2cm}}. \text{ Write the answer in the lowest terms.}$$

If the answer results in a mixed number be sure to include a space between the whole number and the fraction. Example: 1 1/4 (read as one and one-fourth).

7 17/18

$$2\frac{1}{6} = \frac{13}{6} \text{ and } 3\frac{2}{3} = \frac{11}{3}$$

$$\frac{13}{6} \times \frac{11}{3} = \frac{143}{18} = 7\frac{17}{18}$$

ASHP: 12.1.a Explain the use of Roman numerals, Arabic numbers, fractions, decimals, and apothecary symbols.

ASHP: 28.3.a Correctly solve mathematical problems using Roman numerals, Arabic numbers, fractions, apothecary symbols, and decimals.

Blooms: Apply

CAAHEP: II.C.1 Demonstrate knowledge of basic math computations

CAAHEP: II.C.2 Apply mathematical computations to solve equations

Difficulty: 2 Medium

Learning Outcome: 1.8 Multiply fractions.

Topic: Multiplying Fractions

Chapter 01 - Fractions

48.

$$\frac{3}{4} \div \frac{5}{8} = \underline{\hspace{2cm}}. \text{ Write the answer as a mixed number in the lowest terms.}$$

If the answer results in a mixed number be sure to include a space between the whole number and the fraction. Example: 1 1/4 (read as one and one-fourth).

1 1/5

$$\frac{3}{4} \div \frac{5}{8} = \frac{3}{4} \times \frac{8}{5} = \frac{24}{20} = 1\frac{1}{5}$$

ASHP: 12.1.a Explain the use of Roman numerals, Arabic numbers, fractions, decimals, and apothecary symbols.

ASHP: 28.3.a Correctly solve mathematical problems using Roman numerals, Arabic numbers, fractions, apothecary symbols, and decimals.

Blooms: Apply

CAAHEP: II.C.1 Demonstrate knowledge of basic math computations

CAAHEP: II.C.2 Apply mathematical computations to solve equations

Difficulty: 2 Medium

Learning Outcome: 1.9 Divide fractions.

Topic: Dividing Fractions

Chapter 01 - Fractions

49.

$$\frac{2}{9} \div \frac{2}{8} = \underline{\hspace{2cm}}. \text{ Reduce the answer to the lowest terms.}$$

If the answer results in a mixed number be sure to include a space between the whole number and the fraction. Example: 1 1/4 (read as one and one-fourth).

8/9

$$\frac{2}{9} \div \frac{2}{8} = \frac{2}{9} \times \frac{8}{2} = \frac{16}{18} = \frac{8}{9}$$

ASHP: 12.1.a Explain the use of Roman numerals, Arabic numbers, fractions, decimals, and apothecary symbols.

ASHP: 28.3.a Correctly solve mathematical problems using Roman numerals, Arabic numbers, fractions, apothecary symbols, and decimals.

Blooms: Apply

CAAHEP: II.C.1 Demonstrate knowledge of basic math computations

CAAHEP: II.C.2 Apply mathematical computations to solve equations

Difficulty: 1 Easy

Learning Outcome: 1.9 Divide fractions.

Topic: Dividing Fractions

50.

$$4\frac{2}{5} \div 1\frac{3}{8} = \underline{\hspace{2cm}}. \text{ Reduce the answer to the lowest terms.}$$

If the answer results in a mixed number be sure to include a space between the whole number and the fraction. Example: 1 1/4 (read as one and one-fourth).

3 1/5

$$4\frac{2}{5} = \frac{22}{5}; \quad 1\frac{3}{8} = \frac{11}{8}$$
$$\frac{22}{5} \div \frac{11}{8} = \frac{22}{5} \times \frac{8}{11} = \frac{176}{55} = 3\frac{11}{55} = 3\frac{1}{5}$$

ASHP: 12.1.a Explain the use of Roman numerals, Arabic numbers, fractions, decimals, and apothecary symbols.

ASHP: 28.3.a Correctly solve mathematical problems using Roman numerals, Arabic numbers, fractions, apothecary symbols, and decimals.

Blooms: Apply

CAAHEP: II.C.1 Demonstrate knowledge of basic math computations

CAAHEP: II.C.2 Apply mathematical computations to solve equations

Difficulty: 1 Easy

Learning Outcome: 1.9 Divide fractions.

Topic: Dividing Fractions

Chapter 01 - Fractions

51.

A healthcare professional opens a case that has a total of 100 ounces of medicine. If each vial in the case holds $1\frac{1}{4}$ ounces, how many vials are in the case?

80

$$100 = \frac{100}{1}; \quad 1\frac{1}{4} = \frac{5}{4}$$
$$\frac{100}{1} \div \frac{5}{4} = \frac{100}{1} \times \frac{4}{5} = \frac{400}{5} = 80$$

ASHP: 12.1.a Explain the use of Roman numerals, Arabic numbers, fractions, decimals, and apothecary symbols.

ASHP: 28.3.a Correctly solve mathematical problems using Roman numerals, Arabic numbers, fractions, apothecary symbols, and decimals.

Blooms: Apply

CAAHEP: II.C.1 Demonstrate knowledge of basic math computations

CAAHEP: II.C.2 Apply mathematical computations to solve equations

Difficulty: 3 Hard

Learning Outcome: 1.9 Divide fractions.

Topic: Dividing Fractions

Worksheet Questions

52. The lowest three equivalent fractions for $\frac{5}{12}$ are _____, _____, and _____.

If the answer results in a mixed number be sure to include a space between the whole number and the fraction. Example: 1 1/4 (read as one and one-fourth).

ASHP: 12.1.a Explain the use of Roman numerals, Arabic numbers, fractions, decimals, and apothecary symbols.

ASHP: 28.3.a Correctly solve mathematical problems using Roman numerals, Arabic numbers, fractions, apothecary symbols, and decimals.

Blooms: Apply

CAAHEP: II.C.1 Demonstrate knowledge of basic math computations

CAAHEP: II.C.2 Apply mathematical computations to solve equations

Difficulty: 2 Medium

Learning Outcome: 1.2 Identify and produce equivalent fractions.

Topic: Equivalent Fractions

Fill in the Blank Questions

53.

Find the missing numerator in $\frac{4}{5} = \frac{x}{25}$
 $x =$ _____

20

To find the missing numerator when the denominator of the equivalent fraction is larger than the original denominator, divide the larger denominator by the smaller one and multiply the original numerator by the quotient. $25 \div 5 = 5 \times 4 = 20$.

ASHP: 12.1.a Explain the use of Roman numerals, Arabic numbers, fractions, decimals, and apothecary symbols.

ASHP: 28.3.a Correctly solve mathematical problems using Roman numerals, Arabic numbers, fractions, apothecary symbols, and decimals.

Blooms: Apply

CAAHEP: II.C.1 Demonstrate knowledge of basic math computations

CAAHEP: II.C.2 Apply mathematical computations to solve equations

Difficulty: 1 Easy

Learning Outcome: 1.2 Identify and produce equivalent fractions.

Topic: Equivalent Fractions

Chapter 01 - Fractions

54.

$\frac{18}{37}$ simplified to its lowest terms is _____.

If the answer results in a mixed number be sure to include a space between the whole number and the fraction. Example: 1 1/4 (read as one and one-fourth).

18/37

$\frac{18}{37}$ is already in lowest terms.

ASHP: 12.1.a Explain the use of Roman numerals, Arabic numbers, fractions, decimals, and apothecary symbols.

Blooms: Apply

CAAHEP: II.C.1 Demonstrate knowledge of basic math computations

CAAHEP: II.C.2 Apply mathematical computations to solve equations

Difficulty: 1 Easy

Learning Outcome: 1.3 Determine the simplest form of a fraction.

Topic: Reducing Fractions

55. Insert >, <, or = to make a true statement: $\frac{4}{5}$ _____ $\frac{4}{9}$.
 \geq

The LCD is 45.

$$\frac{4}{5} = \frac{36}{45} \text{ and } \frac{4}{9} = \frac{20}{45}; \frac{36}{45} > \frac{20}{45}; \text{ therefore } \frac{4}{5} > \frac{4}{9}.$$

ASHP: 12.1.a Explain the use of Roman numerals, Arabic numbers, fractions, decimals, and apothecary symbols.

ASHP: 28.3.a Correctly solve mathematical problems using Roman numerals, Arabic numbers, fractions, apothecary symbols, and decimals.

Blooms: Apply

CAAHEP: II.C.1 Demonstrate knowledge of basic math computations

CAAHEP: II.C.2 Apply mathematical computations to solve equations

Difficulty: 2 Medium

Learning Outcome: 1.2 Identify and produce equivalent fractions.

Learning Outcome: 1.5 Compare the values of fractions.

Topic: Comparing Fractions

Chapter 01 - Fractions

56. Insert >, <, or = to make a true statement: $\frac{4}{3}$ _____ $1\frac{1}{3}$.

≡

$\frac{4}{3}$ stated as a mixed number is $1\frac{1}{3}$

ASHP: 12.1.a Explain the use of Roman numerals, Arabic numbers, fractions, decimals, and apothecary symbols.

ASHP: 28.3.a Correctly solve mathematical problems using Roman numerals, Arabic numbers, fractions, apothecary symbols, and decimals.

Blooms: Apply

CAAHEP: II.C.1 Demonstrate knowledge of basic math computations

CAAHEP: II.C.2 Apply mathematical computations to solve equations

Difficulty: 1 Easy

Learning Outcome: 1.2 Identify and produce equivalent fractions.

Learning Outcome: 1.5 Compare the values of fractions.

Topic: Comparing Fractions

57. Insert >, <, or = to make a true statement: $\frac{6}{24}$ _____ $\frac{8}{12}$.

<

ASHP: 12.1.a Explain the use of Roman numerals, Arabic numbers, fractions, decimals, and apothecary symbols.

ASHP: 28.3.a Correctly solve mathematical problems using Roman numerals, Arabic numbers, fractions, apothecary symbols, and decimals.

Blooms: Apply

CAAHEP: II.C.1 Demonstrate knowledge of basic math computations

CAAHEP: II.C.2 Apply mathematical computations to solve equations

Difficulty: 2 Medium

Learning Outcome: 1.2 Identify and produce equivalent fractions.

Learning Outcome: 1.5 Compare the values of fractions.

Topic: Comparing Fractions

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

If the answer results in a mixed number be sure to include a space between the whole number and the fraction. Example: 1 1/4 (read as one and one-fourth).

5/12

The LCD is 12. $\frac{3}{4} - \frac{1}{3} = \frac{9}{12} - \frac{4}{12} = \frac{5}{12}$

ASHP: 12.1.a Explain the use of Roman numerals, Arabic numbers, fractions, decimals, and apothecary symbols.

ASHP: 28.3.a Correctly solve mathematical problems using Roman numerals, Arabic numbers, fractions, apothecary symbols, and decimals.

Blooms: Apply

CAAHEP: II.C.1 Demonstrate knowledge of basic math computations

CAAHEP: II.C.2 Apply mathematical computations to solve equations

Learning Outcome: 1.7 Subtract fractions.

Topic: Subtracting Fractions

59.

$$1\frac{1}{8} - \frac{2}{5} = \underline{\hspace{2cm}}$$

If the answer results in a mixed number be sure to include a space between the whole number and the fraction. Example: 1 1/4 (read as one and one-fourth).

29/40

The LCD is 40.

$$1\frac{1}{8} - \frac{2}{5} = \frac{45}{40} - \frac{16}{40} = \frac{29}{40}$$

ASHP: 12.1.a Explain the use of Roman numerals, Arabic numbers, fractions, decimals, and apothecary symbols.

ASHP: 28.3.a Correctly solve mathematical problems using Roman numerals, Arabic numbers, fractions, apothecary symbols, and decimals.

Blooms: Apply

CAAHEP: II.C.1 Demonstrate knowledge of basic math computations

CAAHEP: II.C.2 Apply mathematical computations to solve equations

Difficulty: 2 Medium

Learning Outcome: 1.7 Subtract fractions.

Topic: Subtracting Fractions

60.

$$1\frac{1}{8} + \frac{2}{5} = \underline{\hspace{2cm}} \text{ (in proper form and reduced to lowest terms)}$$

If the answer results in a mixed number be sure to include a space between the whole number and the fraction. Example: 1 1/4 (read as one and one-fourth).

1 21/40

The LCD is 40.

$$1\frac{1}{8} + \frac{2}{5} = \frac{45}{40} + \frac{16}{40} = 1\frac{21}{40}$$

ASHP: 12.1.a Explain the use of Roman numerals, Arabic numbers, fractions, decimals, and apothecary symbols.

ASHP: 28.3.a Correctly solve mathematical problems using Roman numerals, Arabic numbers, fractions, apothecary symbols, and decimals.

Blooms: Apply

CAAHEP: II.C.1 Demonstrate knowledge of basic math computations

CAAHEP: II.C.2 Apply mathematical computations to solve equations

Difficulty: 2 Medium

Learning Outcome: 1.6 Add fractions.

Topic: Adding Fractions

61.

$$1\frac{1}{8} \times \frac{2}{5} = \underline{\hspace{2cm}} \text{ (in proper form and reduced to lowest terms)}$$

If the answer results in a mixed number be sure to include a space between the whole number and the fraction. Example: 1 1/4 (read as one and one-fourth).

9/20

$$1\frac{1}{8} \times \frac{2}{5} = \frac{9}{8} \times \frac{2}{5} = \frac{18}{40} = \frac{9}{20}$$

ASHP: 12.1.a Explain the use of Roman numerals, Arabic numbers, fractions, decimals, and apothecary symbols.

ASHP: 28.3.a Correctly solve mathematical problems using Roman numerals, Arabic numbers, fractions, apothecary symbols, and decimals.

Blooms: Apply

CAAHEP: II.C.1 Demonstrate knowledge of basic math computations

CAAHEP: II.C.2 Apply mathematical computations to solve equations

Difficulty: 2 Medium

Learning Outcome: 1.8 Multiply fractions.

Topic: Multiplying Fractions

62.

$$1\frac{1}{8} \div \frac{2}{5} = \underline{\hspace{2cm}}$$

If the answer results in a mixed number be sure to include a space between the whole number and the fraction. Example: 1 1/4 (read as one and one-fourth).

2 13/16

$$1\frac{1}{8} \div \frac{2}{5} = \frac{9}{8} \times \frac{5}{2} = \frac{45}{16} = 2\frac{13}{16}$$

ASHP: 12.1.a Explain the use of Roman numerals, Arabic numbers, fractions, decimals, and apothecary symbols.

ASHP: 28.3.a Correctly solve mathematical problems using Roman numerals, Arabic numbers, fractions, apothecary symbols, and decimals.

Blooms: Apply

CAAHEP: II.C.1 Demonstrate knowledge of basic math computations

CAAHEP: II.C.2 Apply mathematical computations to solve equations

Difficulty: 2 Medium

Learning Outcome: 1.9 Divide fractions.

Topic: Dividing Fractions

63.

$$1\frac{1}{2} + 6\frac{3}{8} + \frac{3}{4} = \underline{\hspace{2cm}}$$

If the answer results in a mixed number be sure to include a space between the whole number and the fraction. Example: 1 1/4 (read as one and one-fourth).

7 3/4

The LCD is 8.

$$1\frac{1}{2} + 6\frac{3}{8} + \frac{3}{4} = \frac{12}{8} + \frac{51}{8} + \frac{6}{8} = \frac{69}{8} = 8\frac{5}{8}$$

ASHP: 12.1.a Explain the use of Roman numerals, Arabic numbers, fractions, decimals, and apothecary symbols.

ASHP: 28.3.a Correctly solve mathematical problems using Roman numerals, Arabic numbers, fractions, apothecary symbols, and decimals.

Blooms: Apply

CAAHEP: II.C.1 Demonstrate knowledge of basic math computations

CAAHEP: II.C.2 Apply mathematical computations to solve equations

Difficulty: 2 Medium

Learning Outcome: 1.6 Add fractions.

Topic: Adding Fractions

Chapter 01 - Fractions

64.

The fraction $\frac{24}{44}$ reduced to lowest terms is _____.

If the answer results in a mixed number be sure to include a space between the whole number and the fraction. Example: 1 1/4 (read as one and one-fourth).

6/11

$$24 \div 4 = 6; 44 \div 4 = 11$$

ASHP: 12.1.a Explain the use of Roman numerals, Arabic numbers, fractions, decimals, and apothecary symbols.

ASHP: 28.3.a Correctly solve mathematical problems using Roman numerals, Arabic numbers, fractions, apothecary symbols, and decimals.

Blooms: Apply

CAAHEP: II.C.1 Demonstrate knowledge of basic math computations

CAAHEP: II.C.2 Apply mathematical computations to solve equations

Difficulty: 2 Medium

Learning Outcome: 1.3 Determine the simplest form of a fraction.

Topic: Reducing Fractions

Chapter 01 - Fractions

65.

The fraction $\frac{30}{54}$ reduced to lowest terms is _____.

If the answer results in a mixed number be sure to include a space between the whole number and the fraction. Example: 1 1/4 (read as one and one-fourth).

5/9

$$30 \div 6 = 5; 54 \div 6 = 9$$

ASHP: 12.1.a Explain the use of Roman numerals, Arabic numbers, fractions, decimals, and apothecary symbols.

ASHP: 28.3.a Correctly solve mathematical problems using Roman numerals, Arabic numbers, fractions, apothecary symbols, and decimals.

Blooms: Apply

CAAHEP: II.C.1 Demonstrate knowledge of basic math computations

CAAHEP: II.C.2 Apply mathematical computations to solve equations

Difficulty: 2 Medium

Learning Outcome: 1.3 Determine the simplest form of a fraction.

Topic: Reducing Fractions

Chapter 01 - Fractions

66.

The fraction $\frac{18}{24}$ reduced to lowest terms is _____.

If the answer results in a mixed number be sure to include a space between the whole number and the fraction. Example: 1 $\frac{1}{4}$ (read as one and one-fourth).

3/4

$$18 \div 6 = 3; 24 \div 6 = 4$$

ASHP: 12.1.a Explain the use of Roman numerals, Arabic numbers, fractions, decimals, and apothecary symbols.

ASHP: 28.3.a Correctly solve mathematical problems using Roman numerals, Arabic numbers, fractions, apothecary symbols, and decimals.

Blooms: Apply

CAAHEP: II.C.1 Demonstrate knowledge of basic math computations

CAAHEP: II.C.2 Apply mathematical computations to solve equations

Difficulty: 2 Medium

Learning Outcome: 1.3 Determine the simplest form of a fraction.

Topic: Reducing Fractions

67.

The least common denominator of the fractions $\frac{5}{7}$ and $\frac{8}{11}$ is _____.

77

Multiples of 7 include 14, 21, 28, 35, 42, 49, 56, 63, 70, 77, and 84. Multiples of 11 include 22, 33, 44, 55, 66, 77, and 88. The lowest common multiple is 77.

ASHP: 12.1.a Explain the use of Roman numerals, Arabic numbers, fractions, decimals, and apothecary symbols.

ASHP: 28.3.a Correctly solve mathematical problems using Roman numerals, Arabic numbers, fractions, apothecary symbols, and decimals.

Blooms: Apply

CAAHEP: II.C.1 Demonstrate knowledge of basic math computations

CAAHEP: II.C.2 Apply mathematical computations to solve equations

Difficulty: 1 Easy

Learning Outcome: 1.4 Find the least common denominator.

Topic: Finding Common Denominators

Chapter 01 - Fractions

68.

The least common denominator of the fractions $\frac{3}{5}$ and $\frac{7}{9}$ is _____.

45

Multiples of 5 include 10, 15, 20, 25, 30, 35, 40, 45, and 50. Multiples of 9 include 18, 27, 36, 45, and 54. The lowest common multiple is 45.

ASHP: 12.1.a Explain the use of Roman numerals, Arabic numbers, fractions, decimals, and apothecary symbols.

ASHP: 28.3.a Correctly solve mathematical problems using Roman numerals, Arabic numbers, fractions, apothecary symbols, and decimals.

Blooms: Apply

CAAHEP: II.C.1 Demonstrate knowledge of basic math computations

CAAHEP: II.C.2 Apply mathematical computations to solve equations

Difficulty: 2 Medium

Learning Outcome: 1.4 Find the least common denominator.

Topic: Finding Common Denominators

69.

The least common denominator of the fractions $\frac{1}{2}$ and $\frac{6}{7}$ is _____.

14

Multiples of 2 include 4, 6, 8, 10, 12, 14, and 16. Multiples of 7 include 14, 21, and 28. The lowest common multiple is 14.

ASHP: 12.1.a Explain the use of Roman numerals, Arabic numbers, fractions, decimals, and apothecary symbols.

ASHP: 28.3.a Correctly solve mathematical problems using Roman numerals, Arabic numbers, fractions, apothecary symbols, and decimals.

Blooms: Apply

CAAHEP: II.C.1 Demonstrate knowledge of basic math computations

CAAHEP: II.C.2 Apply mathematical computations to solve equations

Difficulty: 2 Medium

Learning Outcome: 1.4 Find the least common denominator.

Topic: Finding Common Denominators

Chapter 01 - Fractions

70.

The least common denominator of the fractions $\frac{3}{8}$, $\frac{3}{6}$, and $\frac{1}{4}$ is _____.

24

Multiples of 8 include 16, 24, and 32. Multiples of 6 include 12, 18, 24, and 30. Multiples of 4 include 8, 12, 16, 20, 24, and 28. The lowest common multiple is 24.

ASHP: 12.1.a Explain the use of Roman numerals, Arabic numbers, fractions, decimals, and apothecary symbols.

ASHP: 28.3.a Correctly solve mathematical problems using Roman numerals, Arabic numbers, fractions, apothecary symbols, and decimals.

Blooms: Apply

CAAHEP: II.C.1 Demonstrate knowledge of basic math computations

CAAHEP: II.C.2 Apply mathematical computations to solve equations

Difficulty: 2 Medium

Learning Outcome: 1.4 Find the least common denominator.

Topic: Finding Common Denominators

71. The least common denominator of the fractions $\frac{3}{8}$, $\frac{3}{6}$, and $\frac{1}{4}$ is _____.

24

Multiples of 8 include 16, 24, and 32. Multiples of 6 include 12, 18, 24, and 30. Multiples of 4 include 8, 12, 16, 20, 24, and 28. The lowest common multiple is 24.

ASHP: 12.1.a Explain the use of Roman numerals, Arabic numbers, fractions, decimals, and apothecary symbols.

ASHP: 28.3.a Correctly solve mathematical problems using Roman numerals, Arabic numbers, fractions, apothecary symbols, and decimals.

Blooms: Apply

CAAHEP: II.C.1 Demonstrate knowledge of basic math computations

CAAHEP: II.C.2 Apply mathematical computations to solve equations

Difficulty: 2 Medium

Learning Outcome: 1.4 Find the least common denominator.

Topic: Finding Common Denominators

Chapter 01 - Fractions

72.

The least common denominator of the fractions $\frac{1}{2}$, $\frac{3}{5}$, and $\frac{5}{6}$ is _____.

30

Multiples of 2 include 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24, 26, 28, 30, and 32. Multiples of 5 include 10, 15, 20, 25, 30, and 35. Multiples of 6 include 12, 18, 24, 30, and 36. The lowest common multiple is 30.

ASHP: 12.1.a Explain the use of Roman numerals, Arabic numbers, fractions, decimals, and apothecary symbols.

ASHP: 28.3.a Correctly solve mathematical problems using Roman numerals, Arabic numbers, fractions, apothecary symbols, and decimals.

Blooms: Apply

CAAHEP: II.C.1 Demonstrate knowledge of basic math computations

CAAHEP: II.C.2 Apply mathematical computations to solve equations

Difficulty: 2 Medium

Learning Outcome: 1.4 Find the least common denominator.

Topic: Finding Common Denominators

73. Insert >, <, or = to make a true statement: $\frac{4}{7}$ _____ $\frac{17}{21}$.

<

ASHP: 12.1.a Explain the use of Roman numerals, Arabic numbers, fractions, decimals, and apothecary symbols.

ASHP: 28.3.a Correctly solve mathematical problems using Roman numerals, Arabic numbers, fractions, apothecary symbols, and decimals.

Blooms: Apply

CAAHEP: II.C.1 Demonstrate knowledge of basic math computations

CAAHEP: II.C.2 Apply mathematical computations to solve equations

Difficulty: 2 Medium

Learning Outcome: 1.2 Identify and produce equivalent fractions.

Learning Outcome: 1.5 Compare the values of fractions.

Topic: Comparing Fractions

Chapter 01 - Fractions

74. Insert >, <, or = to make a true statement: $\frac{7}{16}$ _____ $\frac{1}{2}$.

\geq

$\frac{1}{2} = \frac{8}{16}$ which is more than $\frac{7}{16}$.

ASHP: 12.1.a Explain the use of Roman numerals, Arabic numbers, fractions, decimals, and apothecary symbols.

ASHP: 28.3.a Correctly solve mathematical problems using Roman numerals, Arabic numbers, fractions, apothecary symbols, and decimals.

Blooms: Apply

CAAHEP: II.C.1 Demonstrate knowledge of basic math computations

CAAHEP: II.C.2 Apply mathematical computations to solve equations

Difficulty: 2 Medium

Learning Outcome: 1.2 Identify and produce equivalent fractions.

Learning Outcome: 1.5 Compare the values of fractions.

Topic: Comparing Fractions

75. Insert >, <, or = to make a true statement: $\frac{2}{5}$ _____ $\frac{1}{4}$.

<

ASHP: 12.1.a Explain the use of Roman numerals, Arabic numbers, fractions, decimals, and apothecary symbols.

ASHP: 28.3.a Correctly solve mathematical problems using Roman numerals, Arabic numbers, fractions, apothecary symbols, and decimals.

Blooms: Apply

CAAHEP: II.C.1 Demonstrate knowledge of basic math computations

CAAHEP: II.C.2 Apply mathematical computations to solve equations

Difficulty: 2 Medium

Learning Outcome: 1.2 Identify and produce equivalent fractions.

Learning Outcome: 1.5 Compare the values of fractions.

Topic: Comparing Fractions