

Fraction Word Problems

Name: _____

Date: _____

Score: _____ / 24

Q Quick Review

Many real-life situations use fractions. To solve a **fraction word problem**, first decide whether you need to **add** (combining amounts), **subtract** (finding what is left or the difference), or **multiply** (the same fraction used several times). When the fractions have the **same denominator**, add or subtract just the numerators and keep the denominator. Watch for the word “**of**” and for things being repeated — those often mean multiply by a whole number. Always write your answer in **simplest form** and include the units, like cups or miles.

◇ **Example:** Ella had $\frac{7}{8}$ of a yard of string. She used $\frac{3}{8}$ of a yard for a bracelet. How much string is left?

⇒ The question asks how much is *left*, so this is subtraction. Both amounts are eighths of a yard, so subtract the numerators: $7 - 3 = 4$, and keep the denominator 8. That gives $\frac{4}{8}$ of a yard. Simplify by dividing top and bottom by 4: $\frac{4}{8} = \frac{1}{2}$. Ella has half a yard left.

Answer: $\frac{1}{2}$ yard

PRACTICE

Solve each fraction problem. Write each answer in simplest form.

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|---|-------|---|-------|
| 1. Add: $\frac{2}{6} + \frac{3}{6}$ | _____ | 11. Add: $\frac{4}{12} + \frac{2}{12}$ | _____ |
| 2. Subtract: $\frac{5}{8} - \frac{2}{8}$ | _____ | 12. Subtract: $\frac{9}{10} - \frac{4}{10}$ | _____ |
| 3. Add: $\frac{3}{10} + \frac{5}{10}$ | _____ | 13. Multiply: $5 \times \frac{2}{5}$ | _____ |
| 4. Subtract: $\frac{7}{12} - \frac{1}{12}$ | _____ | 14. Add: $\frac{30}{100} + \frac{45}{100}$ | _____ |
| 5. Multiply: $3 \times \frac{1}{4}$ | _____ | 15. Subtract: $\frac{7}{8} - \frac{1}{8}$ | _____ |
| 6. Add: $\frac{1}{4} + \frac{3}{4}$ | _____ | 16. Multiply: $2 \times \frac{5}{6}$ | _____ |
| 7. Subtract: $1 - \frac{2}{5}$ | _____ | 17. Add: $\frac{2}{4} + \frac{1}{4}$ | _____ |
| 8. Multiply: $4 \times \frac{2}{8}$ | _____ | 18. Subtract: $2 - \frac{3}{8}$ | _____ |
| 9. Add: $1\frac{1}{3} + 2\frac{1}{3}$ | _____ | 19. Multiply: $3 \times \frac{3}{8}$ | _____ |
| 10. Subtract: $3\frac{5}{6} - 1\frac{1}{6}$ | _____ | 20. Add: $2\frac{3}{8} + 1\frac{7}{8}$ | _____ |

◆ Word Problems

21. For a party, Theo blew up $\frac{4}{10}$ of the balloons and his sister blew up $\frac{3}{10}$ of them. What fraction of the balloons are blown up so far? _____
22. A bag of dog treats was $\frac{5}{6}$ full. After a week, only $\frac{2}{6}$ of the bag is left. What fraction of the bag of treats was used? _____
23. Each batch of muffins needs $\frac{2}{3}$ cup of oil. If the bakery makes 4 batches, how many cups of oil are needed? _____
24. Sofia jogged $2\frac{1}{4}$ miles on Monday and $1\frac{3}{4}$ miles on Tuesday. How many miles did she jog in those two days? _____



Answer Keys

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| <p>1. $\frac{5}{6}$</p> <p>2. $\frac{3}{8}$</p> <p>3. $\frac{4}{5}$</p> <p>4. $\frac{1}{2}$</p> <p>5. $\frac{3}{4}$</p> <p>6. 1</p> <p>7. $\frac{3}{5}$</p> <p>8. 1</p> <p>9. $3\frac{2}{3}$</p> <p>10. $2\frac{2}{3}$</p> <p>11. $\frac{1}{2}$</p> <p>12. $\frac{1}{2}$</p> | <p>13. 2</p> <p>14. $\frac{3}{4}$</p> <p>15. $\frac{3}{4}$</p> <p>16. $1\frac{2}{3}$</p> <p>17. $\frac{3}{4}$</p> <p>18. $1\frac{5}{8}$</p> <p>19. $1\frac{1}{8}$</p> <p>20. $4\frac{1}{4}$</p> <p>21. $\frac{7}{10}$ of the balloons</p> <p>22. $\frac{1}{2}$ of the bag</p> <p>23. $2\frac{2}{3}$ cups</p> <p>24. 4 miles</p> |
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Step-by-Step Explanations

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| <p>1. Same denominator, so add the tops: $2 + 3 = 5$, giving $\frac{5}{6}$.</p> <p>2. Same denominator, so subtract the tops: $5 - 2 = 3$, giving $\frac{3}{8}$.</p> <p>3. Add the tops: $3 + 5 = 8$, giving $\frac{8}{10}$, which simplifies to $\frac{4}{5}$.</p> <p>4. Subtract the tops: $7 - 1 = 6$, giving $\frac{6}{12}$, which simplifies to $\frac{1}{2}$.</p> <p>5. Multiply the whole number by the top: $3 \times 1 = 3$, giving $\frac{3}{4}$.</p> <p>6. Add the tops: $1 + 3 = 4$, giving $\frac{4}{4}$, which equals one whole.</p> <p>7. Write 1 as $\frac{5}{5}$. Then $\frac{5}{5} - \frac{2}{5} = \frac{3}{5}$.</p> <p>8. Multiply: $4 \times 2 = 8$, giving $\frac{8}{8}$, which equals one whole.</p> <p>9. Wholes: $1 + 2 = 3$. Fractions: $\frac{1}{3} + \frac{1}{3} = \frac{2}{3}$.</p> <p>10. Wholes: $3 - 1 = 2$. Fractions: $\frac{5}{6} - \frac{1}{6} = \frac{4}{6} = \frac{2}{3}$.</p> <p>11. Add the tops: $4 + 2 = 6$, giving $\frac{6}{12}$, which simplifies to $\frac{1}{2}$.</p> <p>12. Subtract the tops: $9 - 4 = 5$, giving $\frac{5}{10}$, which simplifies to $\frac{1}{2}$.</p> <p>13. Multiply: $5 \times 2 = 10$, giving $\frac{10}{5}$, which equals 2.</p> | <p>14. Add the tops: $30 + 45 = 75$, giving $\frac{75}{100}$, which simplifies to $\frac{3}{4}$.</p> <p>15. Subtract the tops: $7 - 1 = 6$, giving $\frac{6}{8}$, which simplifies to $\frac{3}{4}$.</p> <p>16. Multiply: $2 \times 5 = 10$, giving $\frac{10}{6} = \frac{5}{3}$, which is $1\frac{2}{3}$.</p> <p>17. Add the tops: $2 + 1 = 3$, giving $\frac{3}{4}$.</p> <p>18. Write 2 as $1\frac{8}{8}$. Then $\frac{8}{8} - \frac{3}{8} = \frac{5}{8}$, leaving $1\frac{5}{8}$.</p> <p>19. Multiply: $3 \times 3 = 9$, giving $\frac{9}{8}$, which is $1\frac{1}{8}$.</p> <p>20. Wholes: $2 + 1 = 3$. Fractions: $\frac{3}{8} + \frac{7}{8} = \frac{10}{8} = 1\frac{2}{8}$, regroup to $4\frac{2}{8} = 4\frac{1}{4}$.</p> <p>21. This is addition. The denominators match, so add the tops: $4 + 3 = 7$, giving $\frac{7}{10}$.</p> <p>22. This is subtraction: $\frac{5}{6} - \frac{2}{6} = \frac{3}{6}$. Simplify by dividing by 3 to get $\frac{1}{2}$.</p> <p>23. The same amount is used 4 times, so multiply: $4 \times \frac{2}{3} = \frac{8}{3}$, which is $2\frac{2}{3}$ cups.</p> <p>24. Add the wholes: $2 + 1 = 3$. Add the fractions: $\frac{1}{4} + \frac{3}{4} = \frac{4}{4} = 1$. Regroup: $3 + 1 = 4$ miles.</p> |
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