

REVIEW: Adding and Subtracting Fractions with Like Denominators

Name _____

Key Concept and Vocabulary

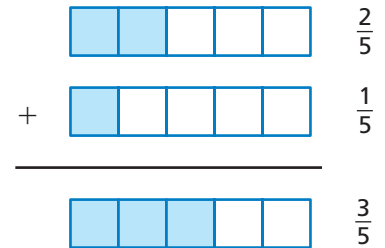
$$\frac{2}{5} + \frac{1}{5} = \frac{2+1}{5} = \frac{3}{5}$$

Add or subtract numerators.

$$\frac{2}{5} - \frac{1}{5} = \frac{2-1}{5} = \frac{1}{5}$$



Visual Model



Skill Examples

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

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

3. $\frac{7}{10} - \frac{4}{10} = \frac{7-4}{10} = \frac{3}{10}$

4. $\frac{13}{25} - \frac{8}{25} = \frac{13-8}{25} = \frac{5}{25} = \frac{1}{5}$

Application Example

5. On Monday, you painted two-fifths of a house. On Tuesday, you painted the same amount. How much is left?

$$\frac{5}{5} - \left(\frac{2}{5} + \frac{2}{5}\right) = \frac{5}{5} - \frac{4}{5} = \frac{1}{5}$$

••• You have one-fifth left to paint.



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Find the sum or difference. Write your answer in simplified form.

6. $\frac{1}{9} + \frac{2}{9} =$ _____

7. $\frac{6}{11} + \frac{5}{11} =$ _____

8. $\frac{1}{10} + \frac{3}{10} =$ _____

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

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

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

12. $\frac{5}{8} - \frac{1}{8} =$ _____

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

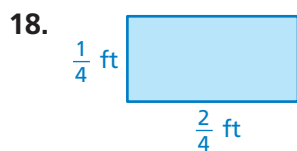
14. $\frac{7}{9} - \frac{4}{9} =$ _____

15. $\frac{9}{10} - \frac{7}{10} =$ _____

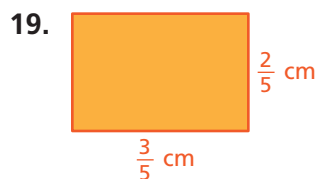
16. $\frac{5}{6} - \frac{2}{6} =$ _____

17. $\frac{6}{6} - \left(\frac{1}{6} + \frac{2}{6}\right) =$ _____

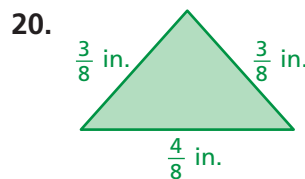
Find the perimeter of the rectangle or triangle.



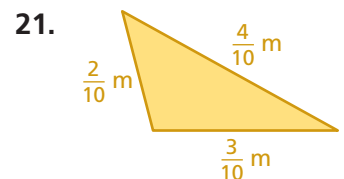
Perimeter = _____



Perimeter = _____



Perimeter = _____



Perimeter = _____

22. **REACHING YOUR GOAL** You have a savings goal. In January, you saved $\frac{2}{10}$ of your goal.

In February, you saved $\frac{3}{10}$ more. How much of your goal remains? Explain.

REVIEW: Simplifying Complex Fractions

Name _____

Key Concept and Vocabulary

A complex fraction is a fraction that contains a fraction in its numerator, denominator, or both. To simplify a complex fraction, divide its numerator by its denominator.



Algebra: $\frac{\frac{a}{b}}{\frac{c}{d}} = \frac{a}{b} \div \frac{c}{d} = \frac{a}{b} \cdot \frac{d}{c}$, where $b, c, d \neq 0$

Numbers: $\frac{\frac{2}{3}}{\frac{5}{6}} = \frac{2}{3} \div \frac{5}{6} = \frac{2}{3} \cdot \frac{6}{5} = \frac{4}{5}$

Skill Examples

1. $\frac{\frac{5}{8}}{4} = \frac{5}{8} \div 4 = \frac{5}{8} \cdot \frac{1}{4} = \frac{5}{32}$

2. $\frac{15}{\frac{9}{10}} = 15 \div \frac{9}{10} = \frac{15}{1} \cdot \frac{10}{9} = \frac{50}{3}$

3. $\frac{\frac{1}{3}}{\frac{5}{7}} = \frac{1}{3} \div \frac{5}{7} = \frac{1}{3} \cdot \frac{7}{5} = \frac{7}{15}$

4. $\frac{\frac{9}{16}}{\frac{3}{8}} = \frac{9}{16} \div \frac{3}{8} = \frac{9}{16} \cdot \frac{8}{3} = \frac{3}{2}$



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Simplify the complex fraction.

5. $\frac{\frac{3}{2}}{6} = \underline{\hspace{2cm}}$

6. $\frac{20}{\frac{4}{5}} = \underline{\hspace{2cm}}$

7. $\frac{\frac{9}{2}}{\frac{12}{7}} = \underline{\hspace{2cm}}$

8. $\frac{\frac{7}{10}}{\frac{9}{20}} = \underline{\hspace{2cm}}$

9. $\frac{\frac{2}{3}}{\frac{16}{27}} = \underline{\hspace{2cm}}$

10. $\frac{5}{\frac{7}{10}} = \underline{\hspace{2cm}}$

11. $\frac{\frac{12}{17}}{8} = \underline{\hspace{2cm}}$

12. $\frac{\frac{3}{14}}{\frac{13}{49}} = \underline{\hspace{2cm}}$

13. $\frac{\frac{27}{32}}{\frac{7}{8}} = \underline{\hspace{2cm}}$

14. $\frac{\frac{9}{10}}{3} = \underline{\hspace{2cm}}$

15. $\frac{6}{\frac{1}{6}} = \underline{\hspace{2cm}}$

16. $\frac{\frac{4}{5}}{\frac{22}{25}} = \underline{\hspace{2cm}}$

17. $\frac{24}{\frac{18}{7}} = \underline{\hspace{2cm}}$

18. $\frac{\frac{1}{4}}{\frac{1}{10}} = \underline{\hspace{2cm}}$

19. $\frac{\frac{3}{5}}{16} = \underline{\hspace{2cm}}$

20. $\frac{\frac{16}{21}}{\frac{8}{9}} = \underline{\hspace{2cm}}$