Arithmetic and Pre-Algebra Practice

Instructions

Solve each problem. For fraction problems, **write your final answer as an improper fraction**. For pre-algebra items, simplify fully.

A. Addition and Subtraction of Fractions

1. $\frac{7}{12} + \frac{5}{8}$

2. $\frac{13}{15} - \frac{7}{10}$

3. $\frac{9}{14} + \frac{3}{7}$

4. $\frac{5}{6} - \frac{11}{12}$

5. $\frac{2}{9} + \frac{7}{18}$

6. $\frac{17}{20} - \frac{3}{5}$

B. Multiplying and Dividing Fractions

7. $\frac{4}{9} \times \frac{15}{16}$

8. $\frac{7}{8} \times \frac{6}{5}$

9. $\frac{5}{12} \div \frac{3}{8}$

10. $\frac{11}{15} \div \frac{22}{45}$

11. $3\frac{1}{4} \times \frac{2}{3}$

12. $5 \div \frac{7}{10}$

C. Mixed Numbers and Combined Operations

13. $1\frac{5}{6} + \frac{2}{3}$

14. $3\frac{1}{4} - 1\frac{5}{8}$

15. $\left(\frac{5}{6} + \frac{1}{4}\right) - \frac{2}{3}$

16. $\left(2\frac{1}{5} \div \frac{3}{10}\right) + \frac{1}{2}$

D. Pre-Algebra Basics

17. Simplify: $3(4 - 7) + 2^3$

18. Solve: $5x - 7 = 18$

19. Solve: $2(x - 3) = 4x + 6$

20. Evaluate: $-3^2 + (-4)(2) + 15$