Do your work and write your answers in your IN9.

I. Least Common Multiple
Find the least common multiple (LCM) for each pair or group of numbers.
1. 6 and 10
2. 8 and 12
3. 5, 6, and 12
4. 2, 6, and 11
5. 4, 7, and 14
6. 2, 5, and 15

7. Cheese cubes are sold in packs of 30 and crackers are sold in packs of 12. To make 60 snacks of 2 cheese cubes and 2 crackers, what is the least number of packs of cheese needed? What is the least number of packs of crackers needed?

II. Adding and Subtracting Fractions Find the sum or difference. Write your answer in simplest form.

8. $\frac{2}{7} + \frac{3}{5}$

9. $\frac{2}{6} + \frac{2}{9}$

10. $\frac{2}{11} + \frac{1}{3}$

11. $\frac{8}{9} - \frac{3}{4}$

12. $\frac{9}{12} - \frac{2}{3}$

13. $\frac{4}{5} - \frac{1}{6}$

Evaluate the expression for $a = \frac{2}{3}$.

14. $a + \frac{3}{4}$

15. $\frac{5}{6} + a$

16. $a + \frac{3}{5}$

17. $a - \frac{1}{4}$

18. $\frac{4}{5} - a$

19. $a - \frac{2}{11}$

20. Jerry spent $\frac{2}{5}$ of his savings to buy a bicycle helmet. He spent $\frac{1}{3}$ of his saving to buy a new t-shirt. What fraction of his savings does he have left?

21. Geri need to make juice from a frozen concentrate. The directions call for $\frac{3}{4}$ of a gallon of water. In one container, Geri has $\frac{1}{5}$ gallon of water. In another container, she has $\frac{1}{6}$ of a gallon of water. How much more water does she need?

III. Regrouping to Subtract Mixed Numbers Subtract. Write each answer is simplest form.

22. $9 - 5\frac{7}{8}$

23. $3\frac{1}{3} - 1\frac{3}{4}$

24. $7\frac{2}{5} - 2\frac{2}{3}$

25. $6\frac{1}{2} - 3\frac{4}{5}$

26. $8\frac{1}{6} - 3\frac{4}{5}$

27. $12\frac{1}{4} - 4\frac{5}{6}$

28. Octavio used a brand new 6-hour DVD to burn his homemade movies. He burned a movie that was $1\frac{1}{2}$ hours long. He burned a second movie that was $2\frac{1}{3}$ hours long. How much time is left to burn on his DVD?

IV. Solving Fraction Equations: Addition and Subtraction Solve each equation. Write the solution in simplest form.

29. $k + 3\frac{3}{7} = 7\frac{4}{5}$

30. $5\frac{1}{2} + m = 6\frac{6}{7}$

31. $9\frac{2}{3} = j + 4\frac{1}{9}$

32. $x - 2\frac{3}{4} = 4\frac{1}{5}$

33. $y - 3\frac{3}{8} = 2\frac{5}{12}$

34. $5\frac{1}{4} = z - 3\frac{1}{3}$

35. Mary decreased her best time for jumping rope 100 times by $1\frac{1}{5}$ seconds. Her best time is now $45\frac{9}{10}$ seconds. What was Mary's old time for jumping rope 100 times?