Kerry Ojakian's MTH 23.5 Class
Class Assignment #8

1. $\frac{5}{4} \cdot \frac{7}{3} =$
2. $\frac{5}{4} \cdot \frac{7}{3} =$
3. $\frac{1}{4} \cdot \frac{3}{4} =$
4. $3 \cdot \frac{2}{7} =$
5. $\left(\frac{6}{8}\right)\left(\frac{4}{9}\right) =$
6. $\left(\frac{7}{3}\right)\left(\frac{3}{8}\right) =$
7. $\left(\frac{1}{5}\right)\left(\frac{4}{6}\right) =$
8. $\left(\frac{2}{5}\right)(5) =$

9. Find the area of a square with side length $\frac{5}{3}$:
10. Find the area of a rectangle with width $\frac{7}{2}$ and height $\frac{8}{3}$:

11. $\frac{6}{5} \div \frac{7}{9} =$
12. $\frac{5}{6} \div \frac{2}{9} =$
13. $4 \div \frac{4}{7} =$
14. $7 \div \frac{6}{4} =$
15. $\frac{5}{6} \div 5 =$
16. $\frac{3}{4} \div 7 =$
17. $\frac{8}{5} \div 4 =$
18. $\frac{1}{3} \div \frac{1}{7} =$

19. LCM of 3 and 2 is:
20. LCM of 3 and 6 is:
21. LCM of 14 and 1 is:
22. LCM of 8 and 6 is:
23. LCM of 14 and 7 and 2 is:
24. LCM of 3 and 4 and 6 is:

25. $\frac{4}{3} + \frac{2}{6} = \text{—} + \text{—} =$
26. $\frac{2}{5} + \frac{7}{4} = \text{—} + \text{—} =$
27. $\frac{5}{4} - \frac{1}{6} = \text{—} - \text{—} =$
28. $\frac{5}{12} + \frac{3}{4} = \text{—} + \text{—} =$

29. $\frac{3}{7} - \frac{3}{4} = \text{—} - \text{—} =$

30. $\frac{5}{8} + \frac{2}{5} = \text{—} + \text{—} =$

31. $\frac{5}{6} + \frac{1}{4} = \text{—} + \text{—} =$

32. $\frac{7}{3} + \frac{6}{5} = \text{—} + \text{—} =$

33. $\frac{2}{6} - \frac{3}{5} = \text{—} - \text{—} =$

34. $\frac{8}{10} + \frac{7}{4} = \text{—} + \text{—} =$

35. $\frac{1}{2} + \frac{5}{6} =$

Evaluate the following expressions at the given values.

36. $x - \frac{1}{2}$ if $x = \frac{1}{2}$

37. $x - \frac{1}{2}$ if $x = 0.5$

38. $x - \frac{1}{2}$ if $x = -\frac{1}{2}$

39. $2a - \frac{b}{6}$ if $a = \frac{1}{12}$, $b = 5$

40. $2a - \frac{b}{6}$ if $a = \frac{5}{16}$, $b = -7$

41. x^2 if $x = \frac{1}{4}$

42. x^2 if $x = -\frac{1}{4}$

43. $x^2 - y^2 - \frac{5}{6}$ if $x = -\frac{1}{3}$, $y = \frac{1}{2}$

Evaluate.

44. $\frac{2}{3} + \frac{5}{6} \cdot \frac{2}{5} =$

45. $\left(\frac{1}{2} + \frac{1}{2}\right) \cdot (5) =$

46. $\frac{6}{5} + \frac{1}{10} \cdot (-2) =$

47. $\frac{1}{2} + \left(\frac{1}{2}\right)^2 =$

48. $\left(1 + \frac{1}{2}\right)^2 =$

49. $\left|\frac{2}{3} - \frac{1}{6}\right| =$

50. $-\left(\frac{2}{5} - \frac{1}{10}\right) =$

51. $-\left(\frac{1}{10} - \frac{2}{5}\right) =$

52. $\frac{1}{3} - \frac{1}{6} \div \frac{1}{2} =$

53. The area of a triangle with base B and height H is: $\frac{1}{2} \cdot B \cdot H$. Find the areas of triangles with the following dimensions:

    (a) Triangle of height 10, with a base of 3.

    (b) Triangle whose base is $\frac{7}{4}$, with a height of $\frac{3}{7}$