Math 105 - Homework 1

Name: _____

Simplify each of the following expressions to a single reduced fraction. Show your work. No calculators.

1. $\dfrac{1}{4} + \dfrac{1}{6}$

2. $\dfrac{3}{5} - \dfrac{1}{4}$

3. $\dfrac{1}{2} + \dfrac{1}{3} + \dfrac{1}{4}$

4. $\dfrac{1}{2} - \dfrac{(-1)}{8} - \dfrac{1}{5}$

5. $\dfrac{-1}{5} - \dfrac{2}{7}$

6. $\dfrac{x}{y} + \dfrac{x}{2}$

7. $\dfrac{3}{10} - 2$

8. $0.45 - 0.02$

9. $\dfrac{7}{5} - 0.3$

10. $4\left(\dfrac{5}{3}\right)$

11. $\dfrac{4}{-1/3}$

12. $\dfrac{\left(\dfrac{8}{3}\right)}{4}$

13. $\left(\dfrac{3}{4}\right)\left(\dfrac{-7}{2}\right)$

14. $\dfrac{(4/7)(9/8)}{2}$

15. $\dfrac{(-1/3)(-6)}{(-4/7)}$

16. $\dfrac{\left(\dfrac{3}{25}\right)}{\left(\dfrac{4}{7}\right)}$

17. $\left(\dfrac{3}{4}\right)\left(\dfrac{-20}{9}\right)$

18. $\dfrac{(4/21)(9/8)}{2}$

19. $\dfrac{(-1/3)(-6)}{(-4/7)}$

20. $\left(\dfrac{15}{8}\right)\left(\dfrac{44}{25}\right)$

21. $\dfrac{4xy}{2(y/x)}$

22. $(0.02)(0.01)$

23. $(0.7)(100)$

24. $\dfrac{0.75}{5}$

25. $\dfrac{1}{4}(0.24)$

26. $\dfrac{0.3}{0.18}$

27. $\dfrac{0.064}{0.8}$

28. $\dfrac{0.12}{1/5}$

29. $\dfrac{3}{1-\frac{1}{10}}$

30. $\dfrac{1}{1+\frac{1}{5}}$

31. $\dfrac{0.44}{1-0.01}$

32. $\dfrac{\frac{1}{2}-\frac{1}{3}}{\frac{1}{2}+\frac{1}{3}}$

33. $\dfrac{x^2+x^2+x^2}{2x}$

34. $\dfrac{3y}{3y+2y+y}$

35. $\dfrac{\frac{1}{2x}}{\frac{1}{x}+\frac{1}{x}}$

36. $\dfrac{1}{x+y+x}$