

Week 1 Math 1508 Worksheet#1:

Problem 1: Evaluate without a calculator

a. $-75 - 5 \cdot 0 + 5$

b. $\frac{7}{12} - \frac{5}{8} - \frac{1}{2}$

c. $-\frac{5}{6} + \frac{7}{9} - 1$

Problem 2: Solve for x

a. $x - \frac{3}{4} = -\frac{5}{8}(x - 4)$

b. $y - 6 = m(x - 6)$

c. $-\frac{2x}{x+3} = \frac{2}{3}$

d. $\frac{x-y}{3x-7y} = 9$

Problem 3: factor completely

a. $y^4 - 81x^4$

b. $y^2 - 8y + 15$

c. $2x^2 + 9x - 18$

d. $e^{2x} - 8e^x + 15$

e. $2\sin^2x + \sinx - 1$

Problem 4: Simplify the expression

a. $\frac{2x^2+10x}{x^2+2x-15}$

b. $\frac{x+1}{x^2-3x-10} \div \frac{x^2-1}{x^2-6x+5}$