

Math 085 - Quiz 10

April 17, 2013

Name key

Score _____

Show all your work to receive full credit. Supply explanations when necessary. Reduce all fractions to lowest terms. Write all fractions as mixed numbers.

1. (4 points) Perform the indicated operations.

$$\begin{array}{r} \text{(a) } 8\frac{2}{3} - 7\frac{1}{2} \\ 8\frac{4}{6} \\ - 7\frac{3}{6} \\ \hline 1\frac{1}{6} \end{array}$$

$$\begin{array}{r} \text{(b) } 5\frac{3}{4} + 14\frac{1}{3} \\ 5\frac{9}{12} \\ 14\frac{4}{12} \\ \hline 19\frac{13}{12} = 20\frac{1}{12} \end{array}$$

$$\begin{array}{r} \text{(c) } 3\frac{4}{5} + \left(-7\frac{2}{3}\right) \\ = - \left(7\frac{2}{3} - 3\frac{4}{5}\right) \\ = -3\frac{13}{15} \end{array} \quad \begin{array}{r} 7\frac{16}{15} \\ - 3\frac{12}{15} \\ \hline 4\frac{4}{15} \\ 6\frac{25}{15} \\ - 3\frac{12}{15} \\ \hline 3\frac{13}{15} \end{array}$$

$$\begin{array}{r} \text{(d) } -6\frac{1}{9} - \left(-4\frac{2}{9}\right) \\ = - \left(6\frac{1}{9} - 4\frac{2}{9}\right) \\ = -1\frac{8}{9} \end{array} \quad \begin{array}{r} 5\frac{10}{9} \\ - 4\frac{2}{9} \\ \hline 1\frac{8}{9} \end{array}$$

2. (1 point) Combine like terms: $3x - 5\frac{1}{7}y + 2\frac{5}{8}x + 6\frac{3}{8}y$

$$x: 3 + 2\frac{5}{8} = 5\frac{5}{8}$$

$$y: -5\frac{1}{7} + 6\frac{3}{8} = 6\frac{3}{8} - 5\frac{1}{7}$$

$$\begin{array}{r} 6\frac{21}{56} \\ 5\frac{8}{56} \\ \hline 1\frac{13}{56} \end{array}$$

$$= 5\frac{5}{8}x + 1\frac{13}{56}y$$