Math 085 - Quiz 13

November 7, 2013

Name key

Score _____

Show all your work to receive full credit. Supply explanations when necessary.
NO CALCULATORS ARE ALLOWED ON THIS QUIZ!

1. (4 points) Carry out the operation. Write your answer as a mixed number in lowest terms.

(a) $5\frac{5}{8}+2\frac{7}{12}$

$5\frac{5}{8}\cdot\frac{3}{3}$
$+\,2\frac{7}{12}\cdot\frac{2}{2}$

$5\frac{15}{24}$
$+\,2\frac{14}{24}$
$7\frac{29}{24}=8\frac{5}{24}$

(b) $4\frac{1}{6}-2\frac{7}{12}$

$4\frac{2}{12}$
$-\,2\frac{7}{12}$

$3\frac{14}{12}$
$-\,2\frac{7}{12}$
$1\frac{7}{12}$

(c) $7\frac{3}{4}\times 2\frac{2}{11}$

$\frac{31}{4_1}\cdot\frac{24^{6}}{11}=\frac{186}{11}=16\frac{10}{11}$

(d) $-\frac{5}{12}\div 6\frac{1}{4}$

$-\frac{5}{12}\div\frac{25}{4}=-\frac{5^{1}}{12_3}\times\frac{4^{1}}{25_5}=-\frac{1}{15}$

2. (1 point) Evaluate $x+3y$ when $x=3\frac{2}{5}$ and $y=3\frac{5}{6}$.

$x=\frac{17}{5}$ $\quad y=\frac{23}{6}$

$\frac{17}{5}+\frac{3^{1}}{1}\left(\frac{23}{6_2}\right)=\frac{17}{5}+\frac{23}{2}$

$=\frac{34}{10}+\frac{115}{10}=\frac{149}{10}=14\frac{9}{10}$