

Name: Key

Math 221: Quiz 10 - 6/18/15

Solve the following problems. Please use a pencil if possible.

1. Fill in the following blanks with $<$, $>$, or $=$. Use a different method for each problem. [20 Points Each]

(a) $\frac{8}{12} \underline{=} \frac{12}{18}$ *Simplify*
 $\frac{2}{3} \underline{=} \frac{2}{3}$

(b) $\frac{6}{7} \underline{>} \frac{3}{4}$ *LCM*
 $\frac{24}{28} \quad \frac{21}{28}$

(c) $\frac{27}{13} \underline{>} \frac{2^6}{27}$ *Cross-multiply*
 $1 \cdot 27 > 2 \cdot 13$
 $27 > 26$

2. Calculate $4\frac{1}{6} - 1\frac{7}{15}$ and leave your answer in mixed number form. Do not convert the mixed numbers to improper fractions, and instead use regrouping. [20 Points]

$$\begin{array}{r} 4\frac{1}{6} \\ - 1\frac{7}{15} \end{array} \rightarrow \begin{array}{r} 3\cancel{4}\frac{\cancel{5}^3}{30} \\ - 1\frac{14}{30} \\ \hline 2\frac{21}{30} = \boxed{2\frac{7}{10}} \end{array}$$

3. Solve the problem $\frac{30}{56} \cdot \frac{35}{15}$ by simplifying first. Your fraction should be reduced after you multiply if you've done this question correctly. [20 Points]

$$\begin{array}{r} 1 \quad 5 \\ \cancel{2} \quad \cancel{30} \cdot \frac{\cancel{35}^5}{\cancel{15}_3} = \boxed{\frac{5}{4}} \\ 4 \quad \cancel{28} \quad \cancel{56} \end{array}$$