

4. [8 pts] Find a fraction that is equivalent to  $\frac{28}{35}$  and whose denominator is strictly between 635 and 655. Show work, but you need not explain.

-4) FLF w/o legal fraction

$$\frac{28^4}{355} = \frac{4}{5}$$

$$\begin{aligned} \times \frac{128}{128} &= \frac{512}{640} \\ \times \frac{129}{129} &= \frac{516}{645} \text{ OR } \frac{520}{650} \\ \times \frac{130}{130} &= \frac{520}{650} \end{aligned}$$

-2) FLF  
-3) 635, 655  
-6) 665  
-4) reduces just

5. [5 pts] Perform an appropriate computation to demonstrate the concept of denseness as it applies to the fractions  $\frac{4}{5}$  and  $\frac{7}{8}$ . You need not explain.

$$\frac{4+7}{5+8} = \frac{11}{13}$$

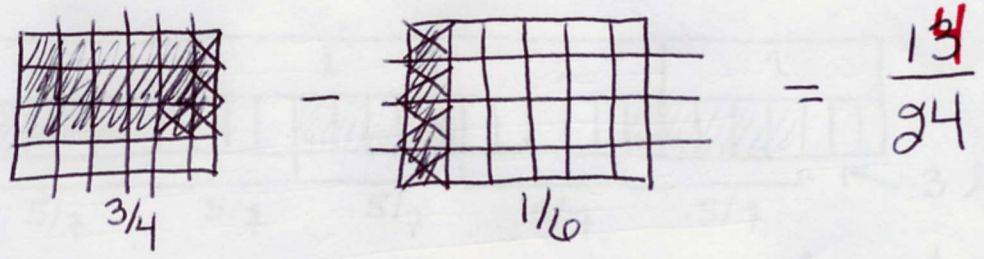
(It's between  $\frac{4}{5}$  and  $\frac{7}{8}$ .)

$\frac{33}{40}, \frac{34}{40}, \frac{67}{80}$  correct.

-1)  $\frac{4}{5} + \frac{7}{8}$   
-4) CD found, not used.

6. [10 pts] Draw a diagram representing  $\frac{3}{4} - \frac{1}{6}$  that does not require you to compute a common denominator in advance. Tell in 1-2 short phrases how to see the numerator and denominator of the answer strictly from your diagram. (You need not take time to explain how the diagram was created.)

-10) X  
-2) 14 kept w/o ref to subtract.  
-3) denom = total



There are 14 shaded pieces left, and 24 pieces in one whole.

7. [8 pts] Subtract entirely in mixed number notation, showing clear work:  $12\frac{3}{8} - 4\frac{6}{7}$

$$\begin{array}{r} 12\frac{3}{8} \cdot \frac{7}{7} \\ - 4\frac{6}{7} \cdot \frac{8}{8} \\ \hline \end{array}$$

$$\begin{array}{r} 12\frac{21}{56} + \frac{56}{56} \\ - 4\frac{48}{56} \\ \hline \boxed{7\frac{29}{56}} \end{array}$$