Fractions Worksheet I

Name: ______________________

MA 201

1. What does it mean when we say that a fraction is in simplest form?

2. Write these fractions in simplest form.
   
   (a) \( \frac{2}{14} \)
   
   (b) \( \frac{21}{15} \)
   
   (c) \( \frac{212}{146} \)
   
   (d) \( \frac{25-73-11^9}{30-72-13^7} \)
   
   (e) \( \frac{45300}{145660} \)

3. Are \( \frac{6}{15} \) and \( \frac{8}{21} \) equivalent? Explain.

4. Which is bigger \( \frac{3}{8} \) or \( \frac{1}{4} \)? Draw a diagram to explain your answer.

5. For each list of fractions, find equivalent fractions that have common denominators.
   
   (a) \( \frac{4}{5}, \frac{3}{10} \)
   
   (b) \( \frac{5}{28}, \frac{4}{15} \)
   
   (c) \( \frac{2}{3}, \frac{4}{15}, \frac{6}{41} \)

6. For each list of fractions, find equivalent fractions that have the least common denominator.
   
   (a) \( \frac{4}{5}, \frac{3}{10} \)
   
   (b) \( \frac{5}{28}, \frac{4}{15} \)
   
   (c) \( \frac{2}{3}, \frac{4}{15}, \frac{6}{41} \)

7. Find two fractions, \( \frac{a}{b} \) and \( \frac{c}{d} \), such that the least common denominator for \( \frac{a}{b} \) and \( \frac{c}{d} \) is NOT equal to LCM\( (b, d) \).

8. Use colored diagrams or fraction strips to explain why \( \frac{2}{5} + \frac{3}{4} \neq \frac{2 + 3}{5 + 4} \).

9. Use the area model to explain why \( \frac{2}{5} \times \frac{3}{4} = \frac{2 \times 3}{5 \times 4} \).

10. What is meant by \( 2 \frac{1}{3} \)?