

## 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)  $\frac{2^5 \cdot 7^3 \cdot 11^9}{2^6 \cdot 7^2 \cdot 13^5}$

(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  $\text{LCM}(b, d)$ .
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  $2\frac{1}{3}$ ?