

LAGUARDIA COMMUNITY COLLEGE
Department of Mathematics, Engineering, and Computer Science
MAT 095 – Introduction to Algebra

Lab #5

1. Write the following improper fractions as mixed numbers.

a) $\frac{5}{2} = 2\frac{1}{2}$

b) $\frac{14}{3} = \underline{\hspace{2cm}}$

c) $\frac{17}{6} = \underline{\hspace{2cm}}$

d) $\frac{70}{9} = \underline{\hspace{2cm}}$

2. Write the mixed numbers as improper fractions.

a) $2\frac{2}{3} = \frac{(3 \times 2) + 2}{3} = \frac{6 + 2}{3} = \frac{8}{3}$

b) $3\frac{1}{2} = \underline{\hspace{2cm}}$

c) $4\frac{3}{4} = \underline{\hspace{2cm}}$

d) $5\frac{2}{7} = \underline{\hspace{2cm}}$

3. List the next five multiples of these numbers.

a) 3 : 6, 9, 12, _____, _____

b) 4 : _____, _____, _____, _____, _____

c) 5 : _____, _____, _____, _____, _____

4. Find the least common multiple (LCM) for each list of numbers.

a) 3 and 5

3: 3, 6, 9, 12, **15**, 18, 21, 24, 27, 30

5: 5, 10, **15**, 20, 25, 30

LCM = 15

b) 6 and 15

6:

15:

LCM =

c) 4, 8, and 12

4:

8:

12:

LCM =

5. Write equivalent fractions with the indicated denominator.

a) $\frac{2}{9} = \frac{\quad}{36} \rightarrow \frac{2}{9} \times \frac{4}{4} = \frac{8}{36}$

b) $\frac{11}{8} = \frac{\quad}{56}$

c) $\frac{2}{3} = \frac{\quad}{15}$

d) $\frac{5}{6} = \frac{\quad}{54}$

6. Perform the indicated operation and simplify your answer.

a) $\frac{1}{6} + \frac{4}{6} = \frac{1+4}{6} = \frac{5}{6}$

b) $\frac{10}{12} - \frac{3}{12} = \underline{\hspace{2cm}}$

c) $\frac{2}{7} + \frac{1}{7} + \frac{3}{7} = \underline{\hspace{2cm}}$

d) $\frac{5}{11} - \frac{2}{11} - \frac{6}{11} = \underline{\hspace{2cm}}$

e) $\frac{10}{18} - \frac{7}{18} + \frac{5}{18} = \underline{\hspace{2cm}}$

7. Perform the indicated operation and simplify your answer.

a) $\frac{5}{7} - \frac{1}{4} = \frac{20}{28} - \frac{7}{28} = \frac{20-7}{28} = \frac{13}{28}$

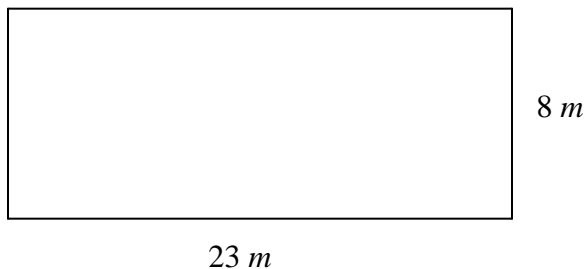
b) $\frac{5}{8} + \frac{7}{12} = \underline{\hspace{2cm}}$

c) $\frac{2}{3} + \frac{1}{4} + \frac{1}{2} = \underline{\hspace{2cm}}$

d) $\frac{3}{15} - \frac{2}{3} - \frac{1}{5} = \underline{\hspace{2cm}}$

e) $\frac{3}{5} + \frac{17}{30} - \frac{5}{6} = \underline{\hspace{2cm}}$

8. Find the area and perimeter of this rectangle. Be sure to include the correct unit of measurements.



Extra Practice Problems: (Optional)

1. Write $\frac{61}{8}$ as mixed number.
2. Write $5\frac{4}{5}$ as improper fraction.
3. Find the least common multiple (LCM) for each list.
 - a) 6 and 8
 - b) 4, 6, and 9
 - c) xy^2 and x^2y
 - d) $4xy^2$ and $8x^2y$
4. Perform the indicated operation and leave your answer in reduced form.
 - a) $\frac{18}{57} + \frac{13}{57}$
 - b) $\frac{4}{19} - \frac{6}{19}$
 - c) $\frac{4}{9} - \frac{1}{6}$
 - d) $\frac{3}{7} + \frac{1}{3}$
 - e) $\frac{4}{5} + \frac{2}{3} - \frac{1}{6}$