

MATH 01 - Arithmetic, Sec. 9777-D20

Second Test. Time allowed: two hours. Professor Luis Fernández

NAME: _____

INSTRUCTIONS:

- Solve the following exercises.
 - **In order to receive credit in any of the exercises YOU MUST SHOW WORK.**
 - All the fractions in your answers must be written **in lowest terms**.
-

[4] **1.** Write the following mixed numbers as fractions:

a) $5\frac{5}{7} =$

b) $3\frac{10}{21} =$

[4] **2.** Write the following fractions as mixed numbers:

a) $\frac{37}{5} =$

b) $\frac{178}{19} =$

[12] **3.** Multiply:

a) $\frac{5}{7} \times \frac{3}{4} =$

b) $\frac{10}{21} \times \frac{14}{25} =$

c) $4 \times \frac{7}{36} =$

d) $\frac{36}{25} \times \frac{15}{21} \times \frac{35}{12} =$

[12] **4.** Divide:

a) $\frac{4}{11} \div \frac{3}{5} =$

b) $2\frac{1}{3} \div 1\frac{2}{5} =$

c) $4 \div \frac{12}{5} =$

d) $\frac{36}{25} \div 9 =$

[10] **5.** Find the Greatest Common Factor (GCF) of the following sets of numbers.

a) {72, 36}

b) {72, 48}

[10] **6.** Find the Least Common Multiple (LCM) of the following sets of numbers. (Remember that finding the LCM is exactly like finding the Least Common Denominator (LCD).)

a) {60, 48}

b) {10, 15, 25}

[18] **7.** Add:

a) $\frac{4}{15} + \frac{8}{15} =$

b) $\frac{13}{20} + \frac{9}{25} =$

c) $4 + \frac{11}{6} =$

d) $\frac{3}{20} + \frac{5}{24} + \frac{5}{28} =$

e) $4\frac{2}{3} + 1\frac{3}{4} =$

f) $453\frac{13}{20} + 425\frac{3}{20} =$

[18] **8.** Subtract:

a) $\frac{9}{10} - \frac{7}{10} =$

b) $\frac{13}{18} - \frac{9}{24} =$

c) $4 - \frac{5}{12} =$

d) $\frac{11}{20} - \frac{7}{30} =$

e) $4\frac{1}{4} - 1\frac{3}{8} =$

f) $524\frac{7}{24} - 225\frac{5}{24} =$

[4] **9.** Arrange the following fractions in decreasing order: $\frac{2}{9}, \frac{3}{8}, \frac{1}{3}$.
(You need to show work - no credit for guessing.)

[12] **10.** Calculate, using the correct order of operations. Do not forget to reduce all fractions to lowest terms.

a) $2 - \frac{3}{4} - 3\frac{1}{2} =$

b) $\left(\frac{2}{5}\right)^2 + 2\frac{4}{5} \times 1\frac{1}{4} =$