Fraction Worksheet

The following set of problems cover all the information about fractions that we discussed in class. You are to work in groups of 3 or 4. Group members roughing it out (having a hard time) should be getting help from group members who have a pretty good understanding of the material. And….of course….I'll be around to answer questions.

1. Determine the missing numerators.

a. $\frac{3}{11} = \frac{?}{33}$

b. $\frac{5}{7} = \frac{?}{42}$

c. $\frac{8}{9} = \frac{?}{81}$

d. $\frac{7}{12} = \frac{?}{36}$

e. $\frac{13}{18} = \frac{?}{72}$

2. Convert the following mixed numbers into improper fractions in lowest terms.

a. $3\frac{7}{9}$

b. $5\frac{5}{8}$

c. $4\frac{3}{12}$

d. $10\frac{8}{13}$

e. $1\frac{27}{31}$

3. Convert the following improper fractions to mixed numbers in lowest terms.

a. $\frac{71}{32}$

b. $\frac{28}{13}$

c. $\frac{89}{12}$

d. $\frac{45}{5}$

e. $\frac{92}{14}$

4. Reduce the following fractions to lowest terms.

a. $\frac{12}{18}$

b. $\frac{8}{72}$

c. $\frac{36}{39}$

d. $\frac{42}{48}$

e. $\frac{54}{82}$

5. Rearrange the following fractions in order from smallest to largest.

$$\frac{3}{2}, \frac{1}{6}, \frac{3}{4}, \frac{5}{8}, \frac{11}{12}, \frac{3}{24}$$

6. When fog hit the New York City area, visibility was reduced to $\frac{1}{16}$ mile at JFK Airport, $\frac{1}{8}$ mile at LaGuardia Airport, and $\frac{1}{2}$ mile at Newark Airport.

a. Which airport had the best visibility?

b. Which airport had the worst visibility?

7. Add the following and write the result in lowest terms.

a. $\frac{4}{9} + \frac{7}{9}$

b. $\frac{13}{17} + \frac{5}{17}$

c. $1\frac{5}{12} + 3\frac{3}{4}$

d. $8\frac{6}{7} + 4\frac{5}{9}$

e. $5\frac{5}{12} + 3\frac{11}{18}$

f. $13 + 4\frac{9}{13}$

8. In each case, do the subtraction and write the result in lowest terms.

a. $\frac{9}{13} - \frac{2}{13}$

b. $13\frac{28}{54} - 2\frac{11}{54}$

c. $8\frac{15}{48} - 7\frac{5}{24}$

d. $11\frac{4}{9} - 7\frac{5}{24}$

e. $22\frac{8}{11} - 17\frac{15}{44}$

f. $46\frac{13}{28} - 34\frac{10}{56}$

g. $74\frac{3}{8} - 61$

h. $28\frac{7}{12} - 15$

i. $48 - 21\frac{5}{9}$

j. $72 - 13\frac{7}{12}$

k. $13\frac{2}{15} - 8\frac{4}{5}$

l. $14\frac{1}{36} - 7\frac{1}{6}$

m. $29\frac{7}{12} - 21\frac{15}{18}$

n. $23\frac{13}{42} - 18\frac{5}{7}$

9. While testing a new drug, doctors found that $\frac{1}{2}$ of the patients given the drug improved, $\frac{2}{5}$ showed no change in their condition, and the remaining patients got worse. What fraction of the patients taking the new drug got worse?

10. You purchased a roll of wallpaper that is $30\frac{1}{2}$ yards long. Your contractor used $26\frac{7}{8}$ yards to wallpaper one room. Is there enough wallpaper left on the roll for a job that requires 4 yards of wallpaper?

11. Solve each of the following equations for x.

a. $14\frac{3}{7} + x = 21$

b. $-17\frac{3}{5} + x = -12\frac{4}{5}$

c. $x - 13\frac{5}{6} = 17\frac{4}{7}$

d. $x + 8\frac{4}{9} = 19\frac{2}{3}$