

Rationals Worksheet (+,-,reduce,compare)

1. Reduce each to a fraction in lowest terms. Convert each improper fraction to a mixed fraction.

- a. $\frac{5}{20}$ d. $\frac{21}{28}$ g. $\frac{ab}{ac}$ where a and c are not equal to zero
/7 b. $\frac{16}{4}$ e. $\frac{26}{39}$
 c. $\frac{18}{15}$ f. $\frac{35}{30}$

2. Use the symbols $>$, $<$, $=$ to compare each of the following pairs of fractions. In order to get any marks you must show how you calculated the answer. (Remember to find common denominators then the fraction with the largest numerator is larger, or, change to decimals then compare.)

- a. $\frac{12}{5}$ $\frac{17}{7}$ d. $\frac{10}{15}$ $\frac{2}{3}$
/6 b. $\frac{4}{3}$ $\frac{16}{11}$ e. $\frac{3}{8}$ $\frac{3}{6}$
 c. $\frac{27}{9}$ $\frac{6}{2}$ f. $\frac{1}{3}$ $\frac{2}{5}$

3. Arrange in order from least to greatest. Show method and express the final answer in the original fractions given in the question.

- /4 a. $\frac{8}{9}$, $\frac{5}{8}$, $\frac{3}{4}$, $\frac{2}{3}$, $\frac{1}{4}$, $\frac{1}{3}$ b. $\frac{3}{5}$, $\frac{1}{10}$, $\frac{1}{9}$, $\frac{1}{8}$, $\frac{2}{3}$, $\frac{1}{2}$

4. Add the following and write the answers in lowest terms.

- a. $\frac{10}{15} + \frac{2}{3}$ d. $\frac{7}{9} + \frac{4}{5}$
/12 b. $\frac{3}{8} + \frac{3}{6}$ e. $\frac{2}{5} + \frac{4}{3}$
 c. $\frac{1}{3} + \frac{2}{5}$ f. $\frac{7}{8} + \frac{2}{3} + \frac{3}{4}$

5. Subtract each of the following and write the answers in lowest terms.

- a. $\frac{4}{9} - \frac{3}{7}$ d. $\frac{5}{8} - \frac{5}{16}$
/12 b. $\frac{3}{4} - \frac{2}{3}$ e. $\frac{3}{8} - \frac{1}{5}$
 c. $\frac{1}{2} - \frac{1}{3}$ f. $\frac{3}{4} - \frac{7}{10}$

6. Add and write the answers in lowest terms. Convert to improper fractions first and show all work.

- a. $2\frac{2}{3} + 5\frac{3}{4}$ c. $9\frac{2}{3} + 7\frac{3}{4}$
/8 b. $3\frac{1}{3} + 2\frac{1}{2}$ d. $4\frac{1}{4} + 6\frac{1}{2}$

7. Subtract and write the answers in lowest terms. Convert to improper fractions first and show all work.

- /8 a. $5\frac{1}{2} - 2\frac{3}{4}$ c. $9\frac{1}{3} - 8\frac{1}{2}$
 b. $2 - 1\frac{5}{7}$ d. $12\frac{1}{2} - 9\frac{3}{8}$

8. Calculate and show all work.

- /2 $14\frac{1}{3} + 3\frac{1}{5} + 2\frac{3}{5}$