1.0 – Fractions Review WORKSHEET

Name: Key
Date: _____

Show all work and circle answer

1. Reduce (put into lowest terms) if possible.

a) $\frac{3 \div 3}{6 \div 3}$ → $\frac{1}{2}$ b) $\frac{16 \div 4}{20 \div 4}$ → $\frac{4}{5}$ c) $\frac{3}{4}$ → $\frac{3}{4}$ d) $\frac{21 \div 7}{-49 \div 7}$ → $\frac{-3}{7}$ e) $\frac{15 \div 3}{9 \div 3}$ → $\frac{5}{3}$ f) $\frac{-6 \div 6}{30 \div 6}$ → $\frac{-1}{5}$ g) $\frac{1}{8}$ → $\frac{1}{8}$ h) $\frac{30 \div 15}{75 \div 15}$ → $\frac{2}{5}$

2. Add or subtract and then reduce (if necessary).

a) $\frac{2}{3} - \frac{1}{3}$ → $\frac{1}{3}$ b) $\frac{3}{4} + \frac{1}{4}$ → $\frac{4}{4} = 1$ c) $\frac{1}{10} + \frac{2 \times 2}{5 \times 2}$ → $\frac{1}{10} + \frac{4}{10}$ → $\frac{5}{10}$ → $\frac{1}{2}$ d) $\frac{5}{8} - \frac{1 \times 2}{4 \times 2}$ → $\frac{5}{8} - \frac{2}{8}$ → $\frac{3}{8}$ e) $\frac{-5}{6} + \frac{2 \times 2}{3 \times 2}$ → $\frac{-5}{6} + \frac{4}{6}$ → $\frac{-1}{6}$ f) $\frac{3 \times 3}{8 \times 3} + \frac{1 \times 8}{3 \times 8}$ → $\frac{9}{24} + \frac{8}{24}$ → $\frac{17}{24}$ g) $\frac{4 \times 3}{5 \times 3} - \frac{2 \times 5}{3 \times 5}$ → $\frac{12}{15} - \frac{10}{15}$ → $\frac{2}{15}$

3. Multiply and then reduce (if necessary).

a) $\frac{1}{6} \times \frac{4}{5}$ → $\frac{4}{30} \div 2$ → $\frac{2}{15}$ b) $\frac{4}{39} \times \frac{-3}{4}$ → $\frac{-12}{36} \div 12$ → $\frac{-1}{3}$ c) $\frac{3}{8} \times \frac{3}{1}$ → $\frac{9}{8}$ d) $\frac{-2}{5} \times \frac{3}{2}$ → $\frac{-6}{10} \div 2$ → $\frac{-3}{5}$ e) $\frac{5}{-2} \times \frac{1}{-3}$ → $\frac{5}{6}$ f) $\frac{6}{5} \times \frac{3}{2}$ → $\frac{18}{10} \div 2$ → $\frac{9}{5}$

4. Divide and then reduce (if necessary).

a) $\frac{1}{3} \div \frac{15}{2}$ → $\frac{1}{3} \times \frac{2}{1}$ → $\frac{2}{3}$ b) $\frac{9}{10} \div \frac{-1}{2}$ → $\frac{9}{10} \times \frac{-2}{1}$ → $\frac{-18}{10} \div 2$ → $\frac{-9}{5}$ c) $\frac{(-2)}{1} \div \frac{45}{5}$ → $\frac{-2}{1} \times \frac{5}{4}$ → $\frac{-10}{4} \div 2$ → $\frac{-5}{2}$ d) $\frac{4}{5} \div \frac{25}{3}$ → $\frac{4}{5} \times \frac{3}{2}$ → $\frac{12}{10} \div 2$ → $\frac{6}{5}$ e) $\frac{+1}{14} \div \frac{15}{6}$ → $\frac{1}{14} \times \frac{6}{1}$ → $\frac{6}{14} \div 2$ → $\frac{3}{7}$

5. Solving with Cross Multiplication (need 1 fraction = 1 fraction). *Decimal answers possible.*

a) $\frac{6}{5} = \frac{x}{10}$ → 6×10 → $\frac{60}{5} = \frac{5x}{5}$ → $x = 12$

b) $\frac{1}{12} = \frac{16}{x}$ → $1x = 12 \times 16$ → $x = 192$

c) $\frac{1760}{1} = \frac{y}{6.4}$ → $1y = 1760 \times 6.4$ → $y = 11264$

d) $\frac{3.28}{1} = \frac{6}{x}$ → $\frac{3.28x}{3.28} = \frac{6}{3.28}$ → $x = 1.83$