

Multiplying and Dividing Fractions:

Name: _____

OBJECTIVE: Changing mixed numbers to improper fractions.

Remember: denominators need not be the same!

$$2 \frac{5}{9} = \frac{23}{9}$$

$$3 \frac{5}{6} = \frac{23}{6}$$

$$4 \frac{1}{3} = \frac{13}{3}$$

$$1 \frac{3}{4} = \frac{7}{4}$$

$$2 \frac{1}{5} = \frac{11}{5}$$

$$4 \frac{3}{5} = \frac{23}{5}$$

$$2 \frac{1}{16} = \frac{33}{16}$$

$$3 \frac{7}{10} = \frac{37}{10}$$

$$5 \frac{2}{3} = \frac{17}{3}$$

$$3 \frac{2}{3} = \frac{11}{3}$$

$$3 \frac{4}{5} = \frac{19}{5}$$

$$5 \frac{4}{5} = \frac{29}{5}$$

OBJECTIVE: Multiplying proper fractions (express in lowest terms).

$$\frac{2}{7} \times \frac{3}{7} = \frac{6}{49}$$

$$\frac{1}{2} \times \frac{1}{2} = \frac{1}{4}$$

$$\frac{3}{8} \times \frac{1}{4} = \frac{3}{32}$$

$$\frac{4}{5} \times \frac{3}{4} = \frac{12}{20} = \frac{3}{5}$$

$$\frac{1}{2} \times \frac{3}{4} = \frac{3}{8}$$

$$\frac{2}{3} \times \frac{3}{14} = \frac{6}{42} = \frac{1}{7}$$

$$\frac{9}{16} \times \frac{2}{3} = \frac{18}{48} = \frac{3}{8}$$

$$\frac{14}{15} \times \frac{5}{6} = \frac{70}{90} = \frac{7}{9}$$

$$\frac{8}{9} \times \frac{6}{10} = \frac{48}{90} = \frac{8}{15}$$

OBJECTIVE: Multiplying a proper fraction by a whole number (express in lowest terms).

$$\frac{1}{2} \times \frac{5}{1} = \frac{5}{2}$$

$$\frac{2}{3} \times \frac{21}{1} = \frac{42}{3} = 14$$

$$\frac{2}{3} \times \frac{8}{1} = \frac{16}{3}$$

$$\frac{4}{9} \times \frac{32}{1} = \frac{128}{9}$$

$$\frac{1}{6} \times 14 = \frac{14}{6} = \frac{7}{3}$$

$$\frac{1}{3} \times 6 = \frac{6}{3} = 2$$

$$\frac{5}{7} \times 11 = \frac{55}{7}$$

$$\frac{7}{8} \times 24 = \frac{168}{8} = 21$$

$$\frac{1}{4} \times 13 = \frac{13}{4}$$

OBJECTIVE: Multiplying a proper fraction by a mixed number (express in lowest terms).

$$\frac{2}{5} \times 6\frac{51}{8} = \frac{102}{40} = \frac{51}{20}$$

$$\frac{9}{10} \times 3\frac{10}{3} = \frac{90}{30} = 3$$

$$\frac{7}{20} \times 4\frac{31}{7} = \frac{217}{140}$$

$$\frac{14}{18} \times 1\frac{9}{7} = \frac{126}{126} = 1$$

$$\frac{3}{4} \times 5\frac{11}{2} = \frac{33}{8}$$

$$\frac{8}{23} \times 2\frac{25}{9} = \frac{200}{207}$$

$$\frac{3}{16} \times 7\frac{23}{3} = \frac{66}{48} = \frac{11}{8}$$

$$\frac{12}{20} \times 1\frac{5}{3} = \frac{60}{60} = 1$$

$$\frac{3}{8} \times 6\frac{41}{6} = \frac{121}{48}$$

OBJECTIVE: Dividing a proper fraction
by a proper fraction
(express in lowest terms).



$$\frac{2}{3} \div \frac{53}{35} = \frac{10}{9}$$

$$\frac{7}{8} \div \frac{43}{34} = \frac{28}{24} = \frac{7}{6}$$

$$\frac{3}{7} \div \frac{113}{311} = \frac{33}{21} = \frac{11}{7}$$

$$\frac{4}{5} \div \frac{97}{79} = \frac{36}{35}$$

$$\frac{11}{12} \div \frac{32}{28} = \frac{33}{24} = \frac{11}{8}$$

$$\frac{3}{16} \div \frac{83}{38} = \frac{24}{48} = \frac{1}{2}$$

$$\frac{1}{10} \div \frac{212}{221} = \frac{21}{20}$$

$$\frac{7}{8} \div \frac{15}{511} = \frac{77}{40}$$

$$\frac{7}{10} \div \frac{53}{38} = \frac{35}{30} = \frac{7}{6}$$

OBJECTIVE: Dividing a proper fraction
by a whole number (express
in lowest terms).

$$\frac{3}{4} \div \frac{1}{12} = \frac{3}{48} = \frac{1}{16}$$

$$\frac{4}{9} \div \frac{1}{3} = \frac{4}{27}$$

$$\frac{3}{5} \div \frac{1}{2} = \frac{3}{10}$$

$$\frac{5}{6} \div \frac{1}{3} = \frac{5}{18}$$

$$\frac{5}{9} \div \frac{1}{20} = \frac{5}{180} = \frac{1}{36}$$

$$\frac{12}{17} \div \frac{1}{18} = \frac{12}{306} = \frac{2}{51}$$

$$\frac{8}{9} \div \frac{1}{24} = \frac{8}{216} = \frac{1}{27}$$

$$\frac{5}{6} \div \frac{1}{15} = \frac{5}{90} = \frac{1}{18}$$

$$\frac{5}{8} \div \frac{1}{10} = \frac{5}{80} = \frac{1}{16}$$

OBJECTIVE: Dividing a proper fraction by a mixed number (express in lowest terms).

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

$$\frac{1}{5} \cdot \frac{2}{3} = \frac{2}{15}$$

$$\frac{4}{5} \div 4\frac{\frac{14}{3}}{3} =$$

$$\frac{4}{5} \cdot \frac{3}{14} = \frac{12}{70}$$

$$\frac{1}{3} \div 1\frac{\frac{3}{2}}{2} =$$

$$\frac{1}{3} \cdot \frac{2}{3} = \frac{2}{9}$$

$$\frac{5}{8} \div 1\frac{\frac{8}{5}}{5} =$$

$$\frac{5}{8} \cdot \frac{5}{8} = \frac{25}{64}$$

$$\frac{7}{10} \div 4\frac{\frac{21}{5}}{5} =$$

$$\frac{7}{10} \cdot \frac{5}{21} = \frac{35}{210} = \frac{1}{6}$$

$$\frac{3}{4} \div 2\frac{\frac{10}{5}}{5} =$$

$$\frac{3}{4} \cdot \frac{5}{12} = \frac{15}{48} = \frac{5}{16}$$

$$\frac{2}{3} \div 4\frac{\frac{25}{6}}{6} =$$

$$\frac{2}{3} \cdot \frac{6}{25} = \frac{12}{75} = \frac{4}{25}$$

$$\frac{7}{12} \div 3\frac{\frac{7}{2}}{2} =$$

$$\frac{7}{12} \cdot \frac{2}{7} = \frac{14}{84} = \frac{1}{6}$$

$$\frac{1}{2} \div 2\frac{\frac{17}{8}}{8} =$$

$$\frac{1}{2} \cdot \frac{8}{17} = \frac{8}{34} = \frac{4}{17}$$

$$4\frac{\frac{21}{5}}{5} \div \frac{9}{10} =$$

$$\frac{21}{5} \cdot \frac{10}{9} = \frac{210}{45} = \frac{14}{3}$$

$$7\frac{\frac{15}{2}}{2} \div \frac{4}{5} =$$

$$\frac{15}{2} \cdot \frac{5}{4} = \frac{75}{8}$$

$$6\frac{1}{4} \div \frac{4}{5} =$$

$$\frac{25}{4} \cdot \frac{5}{4} = \frac{125}{16}$$

$$3\frac{1}{2} \div \frac{2}{3} =$$

$$\frac{7}{2} \cdot \frac{3}{2} = \frac{21}{4}$$

$$5\frac{1}{2} \div \frac{1}{4} =$$

$$\frac{11}{2} \cdot \frac{4}{1} = \frac{44}{2} = 22$$

$$2\frac{2}{5} \div \frac{4}{5} =$$

$$\frac{12}{5} \cdot \frac{5}{4} = \frac{75}{20} = \frac{15}{4}$$

$$2\frac{1}{7} \div \frac{5}{9} =$$

$$\frac{15}{7} \cdot \frac{9}{5} = \frac{135}{35} = \frac{27}{7}$$

$$3\frac{2}{5} \div \frac{3}{5} =$$

$$\frac{17}{5} \cdot \frac{5}{3} = \frac{85}{15} = \frac{17}{3}$$

$$2\frac{2}{3} \div \frac{4}{7} =$$

$$\frac{8}{3} \cdot \frac{7}{4} = \frac{56}{12} = \frac{14}{3}$$