

Name: _____

Dividing Mixed Numbers

Example:

$$2\frac{2}{3} \div 1\frac{1}{2} = \frac{8}{3} \div \frac{3}{2}$$

$$\frac{8}{3} \div \frac{3}{2} = \frac{8}{3} \times \frac{2}{3}$$

Dividing by a number is the same as multiplying by its reciprocal.

↑ reciprocals ↓

$$\frac{8}{3} \times \frac{2}{3} = \frac{16}{9} = 1\frac{7}{9}$$

a. $2\frac{3}{5} \div 1\frac{1}{2}$

b. $1\frac{7}{8} \div 3\frac{2}{3}$

c. $5\frac{3}{4} \div \frac{1}{2}$

d. $3\frac{6}{7} \div 4\frac{2}{3}$

e. $10\frac{1}{3} \div 5\frac{1}{2}$

f. $5\frac{4}{5} \div 6\frac{1}{3}$

g. $9 \div 3\frac{3}{8}$

h. $6\frac{2}{3} \div 2\frac{2}{5}$

i. $6 \div 4\frac{5}{8}$

ANSWER KEY

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$$\frac{8}{3} \div \frac{3}{2} = \frac{8}{3} \times \frac{2}{3}$$

Dividing by a number is the same as multiplying by its reciprocal.

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$$\frac{8}{3} \times \frac{2}{3} = \frac{16}{9} = 1\frac{7}{9}$$

a. $2\frac{3}{5} \div 1\frac{1}{2}$

$$\frac{13}{5} \div \frac{3}{2} = \frac{13}{5} \times \frac{2}{3}$$

$$\frac{13}{5} \times \frac{2}{3} = \frac{26}{15} = 1\frac{11}{15}$$

b. $1\frac{7}{8} \div 3\frac{2}{3}$

$$\frac{15}{8} \div \frac{11}{3} = \frac{15}{8} \times \frac{3}{11}$$

$$\frac{15}{8} \times \frac{3}{11} = \frac{45}{88}$$

c. $5\frac{3}{4} \div \frac{1}{2}$

$$\frac{23}{4} \div \frac{1}{2} = \frac{23}{4} \times \frac{2}{1}$$

$$\frac{23}{4} \times \frac{2}{1} = \frac{46}{4} = 11\frac{2}{4} = 11\frac{1}{2}$$

d. $3\frac{6}{7} \div 4\frac{2}{3}$

$$\frac{27}{7} \div \frac{14}{3} = \frac{27}{7} \times \frac{3}{14}$$

$$\frac{27}{7} \times \frac{3}{14} = \frac{81}{98}$$

e. $10\frac{1}{3} \div 5\frac{1}{2}$

$$\frac{31}{3} \div \frac{11}{2} = \frac{31}{3} \times \frac{2}{11}$$

$$\frac{31}{3} \times \frac{2}{11} = \frac{62}{33} = 1\frac{29}{33}$$

f. $5\frac{4}{5} \div 6\frac{1}{3}$

$$\frac{29}{5} \div \frac{19}{3} = \frac{29}{5} \times \frac{3}{19}$$

$$\frac{29}{5} \times \frac{3}{19} = \frac{87}{95}$$

g. $9 \div 3\frac{3}{8}$

$$\frac{9}{1} \div \frac{27}{8} = \frac{9}{1} \times \frac{8}{27}$$

$$\frac{9}{1} \times \frac{8}{27} = \frac{72}{27} = 2\frac{18}{27} = 2\frac{2}{3}$$

h. $6\frac{2}{3} \div 2\frac{2}{5}$

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

$$\frac{20}{3} \times \frac{5}{12} = \frac{100}{36} = 2\frac{28}{36} = 2\frac{7}{9}$$

i. $6 \div 4\frac{5}{8}$

$$\frac{6}{1} \div \frac{37}{8} = \frac{6}{1} \times \frac{8}{37}$$

$$\frac{6}{1} \times \frac{8}{37} = \frac{48}{37} = 1\frac{11}{37}$$