

6th Grade
1.9 Dividing Mixed Numbers

Dividing mixed numbers is similar to dividing fractions. To divide mixed numbers, write the mixed numbers as improper fractions and then divide as with fractions.

EXAMPLE Divide by a Mixed Number

1 Find $5\frac{1}{2} \div 2\frac{1}{2}$.

$$\frac{11}{2} \div \frac{5}{2} = \frac{11}{2} \cdot \frac{2^1}{5} = \boxed{\frac{11}{5}}$$

$$\frac{22}{10} \div \frac{2}{2} = \frac{11}{5}$$

CHECK Your Progress Divide. Write in simplest form.

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

$$\frac{21}{5} \div \frac{7}{3}$$

$$\frac{3 \cancel{21}}{5} \times \frac{3}{\cancel{7}^1}$$

$$\boxed{\frac{9}{5}}$$

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

$$\frac{8}{1} \div \frac{5}{2}$$

$$\frac{8}{1} \times \frac{2}{5}$$

$$\boxed{\frac{16}{5}}$$

c. $1\frac{5}{9} \div 2\frac{1}{3}$

$$\frac{14}{9} \div \frac{7}{3}$$

$$\frac{2 \cancel{14}}{9} \times \frac{3}{\cancel{7}^1}$$

$$\boxed{\frac{2}{3}}$$

Homework

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extra credit: 36