

REVIEW: Dividing Mixed Numbers

Name _____

Key Concept and Vocabulary

Rewrite as improper fractions.

$$\begin{aligned} 2\frac{1}{2} \div 5 &= \frac{5}{2} \div \frac{5}{1} \\ &= \frac{5}{2} \times \frac{1}{5} \\ &= \frac{1}{2} \end{aligned}$$

Divide.

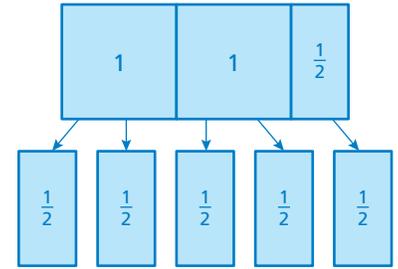


Visual Model

Divide $2\frac{1}{2}$ into five equal parts.

Each part is $\frac{1}{2}$.

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



Skill Examples

- $5 \div 2\frac{1}{2} = \frac{5}{1} \div \frac{5}{2} = \frac{5}{1} \times \frac{2}{5} = 2$
- $3\frac{3}{4} \div 2\frac{1}{2} = \frac{15}{4} \div \frac{5}{2} = \frac{15}{4} \times \frac{2}{5} = \frac{3}{2} = 1\frac{1}{2}$
- $4\frac{1}{6} \div 1\frac{2}{3} = \frac{25}{6} \div \frac{5}{3} = \frac{25}{6} \times \frac{3}{5} = \frac{5}{2} = 2\frac{1}{2}$
- $7\frac{1}{3} \div 11 = \frac{22}{3} \div \frac{11}{1} = \frac{22}{3} \times \frac{1}{11} = \frac{2}{3}$

Application Example

- You need $2\frac{1}{2}$ inches of ribbon to make a Blue-Ribbon award. How many awards can you make with 35 inches of ribbon?

$$35 \div 2\frac{1}{2} = \frac{35}{1} \div \frac{5}{2} = \frac{35}{1} \times \frac{2}{5} = 14$$

••• You can make 14 awards.



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Check your answers at BigIdeasMath.com.

Find the quotient. Write your answer as a whole or mixed number in simplest form.

- $4\frac{1}{2} \div 9 = \underline{2\frac{1}{2}}$
- $3\frac{3}{7} \div 8 = \underline{\frac{3}{7}}$
- $4\frac{2}{3} \div 7 = \underline{\frac{2}{3}}$
- $1\frac{7}{9} \div 4 = \underline{\frac{4}{9}}$
- $8 \div 1\frac{1}{3} = \underline{6}$
- $32 \div 3\frac{1}{5} = \underline{10}$
- $11 \div 2\frac{3}{4} = \underline{4}$
- $9 \div 1\frac{1}{2} = \underline{6}$
- $5\frac{1}{2} \div \frac{1}{2} = \underline{11}$
- $\frac{1}{2} \div 1\frac{1}{2} = \underline{\frac{1}{3}}$
- $1\frac{1}{4} \div 1\frac{1}{4} = \underline{1}$
- $3\frac{1}{2} \div 1\frac{1}{3} = \underline{2\frac{5}{8}}$

Find the missing dimension.

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- RED RIBBONS** You need $3\frac{1}{2}$ inches of ribbon to make a Red-Ribbon award. How many awards can you make with 35 inches of ribbon? 10 awards
- SHIPPING** You are stacking books into a shipping box that is 15 inches high. Each book is $1\frac{1}{4}$ inches thick. How many books can you fit in a stack? 12 books