

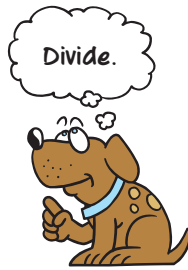
REVIEW: Dividing Mixed Numbers

Name _____

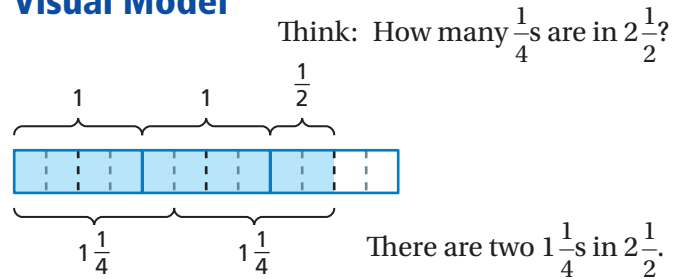
Key Concept and Vocabulary

Rewrite as improper fractions.

$$\begin{aligned} 2\frac{1}{2} \div 1\frac{1}{4} &= \frac{5}{2} \div \frac{5}{4} \\ &= \frac{5}{2} \times \frac{4}{5} \\ &= \frac{20}{10} = 2 \end{aligned}$$



Visual Model



Skill Examples

- $5 \div 2\frac{1}{2} = \frac{5}{1} \div \frac{5}{2} = \frac{5}{1} \times \frac{2}{5} = \frac{10}{5} = 2$
- $7\frac{1}{3} \div 11 = \frac{22}{3} \div \frac{11}{1} = \frac{22}{3} \times \frac{1}{11} = \frac{22}{33} = \frac{2}{3}$
- $3\frac{3}{4} \div 2\frac{1}{2} = \frac{15}{4} \div \frac{5}{2} = \frac{15}{4} \times \frac{2}{5} = \frac{30}{20} = \frac{3}{2} = 1\frac{1}{2}$
- $4\frac{1}{6} \div 1\frac{2}{3} = \frac{25}{6} \div \frac{5}{3} = \frac{25}{6} \times \frac{3}{5} = \frac{75}{30} = \frac{5}{2} = 2\frac{1}{2}$

Application Example

5. 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?

$$35 \div 2\frac{1}{2} = \frac{35}{1} \div \frac{5}{2} = \frac{35}{1} \times \frac{2}{5} = \frac{70}{5} = 14$$

You can make 14 awards.

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Check your answers at BigIdeasMath.com.

Find the quotient. Write your answer in simplest form.

6. $4\frac{1}{2} \div 9 = \underline{\frac{1}{2}}$

7. $3\frac{3}{7} \div 8 = \underline{\frac{3}{7}}$

8. $4\frac{2}{3} \div 7 = \underline{\frac{2}{3}}$

9. $1\frac{7}{9} \div 4 = \underline{\frac{4}{9}}$

10. $8 \div 1\frac{1}{3} = \underline{6}$

11. $32 \div 3\frac{1}{5} = \underline{10}$

12. $11 \div 2\frac{3}{4} = \underline{4}$

13. $9 \div 1\frac{1}{2} = \underline{6}$

14. $5\frac{1}{2} \div \frac{1}{2} = \underline{11}$

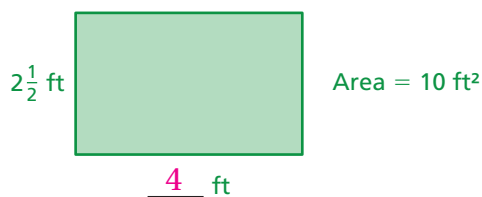
15. $\frac{1}{2} \div 1\frac{1}{2} = \underline{\frac{1}{3}}$

16. $1\frac{1}{4} \div 1\frac{1}{4} = \underline{1}$

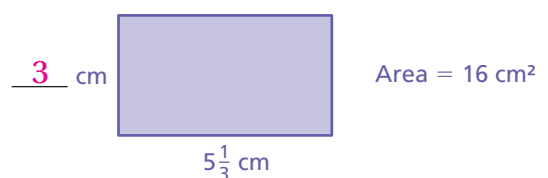
17. $3\frac{1}{2} \div 1\frac{1}{3} = \underline{2\frac{5}{8}}$

Find the unknown measure of the rectangle.

18.



19.



20. **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

21. **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