

2.6 Dividing Fractions

MATHPOWER™

To divide by a fraction, multiply by its reciprocal.

$$\begin{aligned} 3\frac{1}{2} \div 1\frac{2}{3} &= \frac{7}{2} \div \frac{5}{3} \\ &= \frac{7}{2} \times \frac{3}{5} \\ &= \frac{21}{10} \text{ or } 2\frac{1}{10} \end{aligned}$$

← Write the mixed numbers as improper fractions, then divide.

Express all answers in lowest terms.

Divide.

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

3. $\frac{1}{2} \div \frac{1}{6}$ _____ 4. $\frac{3}{4} \div \frac{1}{2}$ _____

Divide.

5. $5 \div \frac{1}{4}$ _____ 6. $4 \div \frac{2}{3}$ _____

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

Divide.

9. $1\frac{2}{5} \div \frac{5}{9}$ _____ 10. $3\frac{2}{3} \div \frac{1}{7}$ _____

11. $2\frac{1}{2} \div \frac{4}{11}$ _____ 12. $4\frac{1}{3} \div \frac{2}{5}$ _____

13. $\frac{7}{12} \div 3\frac{1}{2}$ _____ 14. $\frac{7}{15} \div 2\frac{2}{3}$ _____

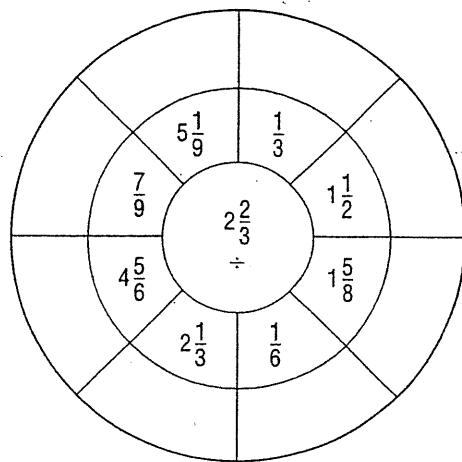
15. $\frac{1}{3} \div 1\frac{1}{4}$ _____ 16. $\frac{6}{7} \div 4\frac{3}{4}$ _____

17. $1\frac{3}{8} \div 1\frac{3}{4}$ _____ 18. $3\frac{1}{6} \div 1\frac{5}{6}$ _____

19. $2\frac{5}{12} \div 1\frac{1}{3}$ _____ 20. $4\frac{3}{7} \div 1\frac{3}{8}$ _____

21. $6 \div 2\frac{3}{4}$ _____ 22. $9 \div 4\frac{1}{5}$ _____

23. Complete the division wheel.



24. A juice jug holds $3\frac{3}{4}$ L of juice. How many glasses of juice can you pour if each one holds $\frac{1}{5}$ L?

Calculate the average speed for each of the following.

25. 126 km in $2\frac{1}{4}$ h _____

26. $292\frac{1}{2}$ km in $4\frac{1}{2}$ h _____

27. 288 km in $3\frac{3}{5}$ h _____

Find the missing value.

28. $\frac{2}{15} \div \square = \frac{2}{3}$

29. $\frac{5}{8} \div \square = 1\frac{2}{3}$

30. $\square \div 1\frac{5}{7} = \frac{3}{4}$

31. $\square \div 2\frac{1}{4} = 1\frac{1}{5}$