042 Math Practice

Dividing Mixed Numbers

Math PRACTICE *in* SCIENCE

In order to divide mixed numbers, you first change the mixed numbers to improper fractions. Then you invert the divisor and multiply.

Example: Find the quotient for $2\frac{2}{3} \div \frac{5}{6}$.

Step 1: Express mixed numbers as improper fractions.
Step 2: Invert the divisor, simplify if possible, and multiply.
Step 3: Simplify the answer.

$$2\frac{2}{3} \div \frac{5}{6} = \frac{8}{3} \div \frac{5}{6}$$

$$\frac{8}{\cancel{3}_1} \times \frac{\cancel{6}^2}{5} = \frac{8}{1} \times \frac{2}{5} = \frac{16}{5}$$

$$\frac{16}{5} = 3\frac{1}{5}$$

Divide. Write your answers in lowest terms.

1. $1\frac{3}{6} \div \frac{12}{15} =$
2. $1\frac{5}{12} \div 2\frac{1}{6} =$
3. $\frac{8}{15} \div 2\frac{1}{2} =$
4. $3\frac{1}{8} \div 2\frac{3}{4} =$
5. $1\frac{3}{4} \div 1\frac{1}{8} =$
6. $16 \div 1\frac{1}{2} =$
7. $2\frac{4}{5} \div 2\frac{8}{10} =$
8. $6\frac{3}{7} \div 4\frac{1}{2} =$
9. $2\frac{3}{5} \div 6 =$
10. $1\frac{6}{7} \div \frac{7}{6} =$
11. $2\frac{8}{10} \div \frac{4}{5} =$
12. $\frac{5}{6} \div 1\frac{2}{3} =$
13. $2\frac{2}{3} \div 4 =$
14. $4\frac{1}{3} \div 2\frac{1}{3} =$
15. $2\frac{1}{5} \div 6 =$
16. $2\frac{1}{2} \div 1\frac{3}{6} =$
17. $1\frac{5}{9} \div 5\frac{1}{3} =$
18. $2\frac{2}{3} \div 3\frac{2}{9} =$
19. $5 \div 3\frac{3}{4} =$
20. $3\frac{3}{5} \div 9\frac{1}{3} =$
21. $6 \div 1\frac{4}{5} =$

043 Math Practice

Comparing Fractions

There is a special way to compare fractions by using mathematics. All you have to do is *cross-multiply*. This means that you multiply the numerator of one factor by the denominator of the other factor. Then you multiply the denominator of one factor by the numerator of the other factor.

Example: Compare $\frac{4}{9}$ and $\frac{1}{2}$.

Step 1: Multiply one numerator by one denominator.

Step 2: Multiply the other numerator by the other denominator.

$\frac{4}{9}$ $\quad$ $\frac{1}{2}$

⑧ $\frac{4}{9}$ $\quad$ $\frac{1}{2}$ ⑨

$8 < 9$

Step 3: Write the products near the numerator.

Step 4: The fractions have the same relationship as the products.

Therefore, $\frac{4}{9} < \frac{1}{2}$

Write >, <, or = for each pair of fractions.

1. $\frac{5}{12}$ ◯ $\frac{4}{8}$
2. $\frac{3}{4}$ ◯ $\frac{6}{8}$
3. $\frac{9}{12}$ ◯ $\frac{5}{7}$
4. $\frac{4}{13}$ ◯ $\frac{3}{14}$
5. $\frac{7}{8}$ ◯ $\frac{5}{6}$
6. $\frac{2}{16}$ ◯ $\frac{3}{15}$
7. $\frac{8}{25}$ ◯ $\frac{4}{30}$
8. $\frac{5}{16}$ ◯ $\frac{4}{13}$
9. $\frac{11}{12}$ ◯ $\frac{12}{13}$
10. $\frac{7}{16}$ ◯ $\frac{5}{14}$
11. $\frac{5}{6}$ ◯ $\frac{5}{7}$
12. $\frac{3}{5}$ ◯ $\frac{5}{13}$
13. $\frac{18}{20}$ ◯ $\frac{9}{10}$
14. $\frac{9}{20}$ ◯ $\frac{4}{10}$
15. $\frac{5}{30}$ ◯ $\frac{6}{30}$
16. $\frac{13}{26}$ ◯ $\frac{10}{20}$
17. $\frac{5}{12}$ ◯ $\frac{6}{13}$
18. $\frac{11}{15}$ ◯ $\frac{12}{16}$
19. $\frac{6}{17}$ ◯ $\frac{12}{34}$
20. $\frac{8}{19}$ ◯ $\frac{16}{31}$
21. $\frac{12}{13}$ ◯ $\frac{13}{14}$
22. $\frac{3}{11}$ ◯ $\frac{4}{12}$
23. $\frac{8}{16}$ ◯ $\frac{5}{15}$
24. $\frac{11}{22}$ ◯ $\frac{22}{55}$