I can divide proper fractions and simplify my answer into lowest terms.

Dividing Proper Fractions Introduction

We can learn how to divide fractions by using our well-known **Inverse Property of Multiplication.**

$\frac{4}{5} \div \frac{\quad}{\quad} = 1$ $\quad \frac{4}{5} \cdot \frac{\quad}{\quad} = 1$ $\quad 5 \div \_\_\_\_\_ = 1$ $\quad 5 \cdot \frac{\quad}{\quad} = 1$

What do you notice about the difference in the 2nd fraction when you change from division to multiplication?

Dividing by a fraction is the same as _____ by the _____ of the second fraction.

Let's Do a Couple Examples:

1. $\frac{3}{4} \div \frac{3}{8} =$

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

3. $\frac{8}{9} \div \frac{4}{7} =$

4. $\frac{10}{27} \div \frac{1}{9}$

5. $\frac{5}{12} \div 10$

6. $14 \div \frac{6}{7}$

7. $2\frac{1}{2} \div \frac{3}{4}$

8. $3\frac{3}{4} \div \frac{5}{12} =$

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We can learn how to divide fractions by using our well-known **Inverse Property of Multiplication.**

$\frac{4}{5} \div \frac{4}{5} = 1$ $\frac{4}{5} \cdot \frac{5}{4} = 1$ $5 \div \frac{5}{1} = 1$ $5 \cdot \frac{1}{5} = 1$

What do you notice about the difference in the 2nd fraction when you change from division to multiplication?

Dividing by a fraction is the same as multiplying **by the** reciprocal **of the second fraction.**

Let's Do a Couple Examples:

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

$\frac{3}{4} \cdot \frac{8}{3} = \frac{24}{12} = \boxed{2}$

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

$\frac{1}{\cancel{4}_2} \cdot \frac{\cancel{6}^3}{5} = \frac{6 \div 2}{20 \div 2} = \boxed{\frac{3}{10}}$

3. $\frac{8}{9} \div \frac{4}{7} =$

$\frac{\cancel{8}^2}{9} \cdot \frac{7}{\cancel{4}_1} = \frac{14}{9} = \boxed{1\frac{5}{9}}$

4. $\frac{10}{27} \div \frac{1}{9}$

$\frac{\cancel{10}^{\,5}}{\cancel{27}_{\,3}} \cdot \frac{\cancel{9}^{\,1}}{1} = \frac{10}{3} = \boxed{3\frac{1}{3}}$

5. $\frac{5}{12} \div \frac{10}{1}$

$\frac{\cancel{5}^{\,1}}{12} \cdot \frac{1}{\cancel{10}_{\,2}} = \boxed{\frac{1}{24}}$

6. $\frac{14}{1} \div \frac{6}{7}$

$\frac{\cancel{14}^{\,7}}{1} \cdot \frac{7}{\cancel{6}_{\,3}} = \frac{49}{3} = \boxed{16\frac{1}{3}}$

7. $2\frac{1}{2} \div \frac{3}{4}$

$\frac{5}{\cancel{2}_1} \cdot \frac{\cancel{4}^2}{3} = \frac{10}{3} = \boxed{3\frac{1}{3}}$

8. $3\frac{3}{4} \div \frac{5}{12} =$

$\frac{\cancel{15}^{\,3}}{\cancel{4}_{\,1}} \cdot \frac{\cancel{12}^{\,3}}{\cancel{5}_{\,1}} = \frac{9}{1} = \boxed{9}$