Intro

When multiplying two fractions, such as $\frac{3}{8} \times \frac{2}{5}$, there are two ways you can use to write the product in simplest form.

Method 1
Simplify after multiplying.

Show Answer

Method 2
Simplify before multiplying.

Show Answer

Why is this Useful?

1. $\frac{13}{20} \cdot \frac{4}{39} =$

2. $\frac{5}{9} \cdot \frac{12}{25} =$

3. $\frac{10}{24} \cdot \frac{2}{5} =$

4. $\frac{4}{15} \cdot \frac{10}{18} =$

5. $4 \cdot \frac{11}{44} =$

6. $12 \cdot \frac{7}{20} =$

7. $\frac{18}{3} \cdot \frac{15}{3} =$

8. $\frac{24}{4} \cdot \frac{36}{10} =$

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$\frac{3}{8} \cdot \frac{2}{5} = \frac{6}{40} \div 2 = \frac{3}{20}$

Method 2
Simplify before multiplying.

Show Answer

$\frac{3}{\cancel{8}^{4}} \cdot \frac{\cancel{2}^{1}}{5} = \frac{3}{20}$

Why is this Useful?

1. $\frac{\cancel{13}^{1}}{\cancel{20}^{5}} \cdot \frac{\cancel{4}^{1}}{\cancel{39}^{3}} =$ $\boxed{\frac{1}{15}}$

2. $\frac{\cancel{5}^{1}}{\cancel{9}^{3}} \cdot \frac{\cancel{12}^{4}}{\cancel{25}^{5}} =$ $\boxed{\frac{4}{15}}$

3. $\frac{\cancel{10}^{1}}{\cancel{24}^{12}_{6}} \cdot \frac{\cancel{2}^{1}}{\cancel{5}_{1}} =$ $\boxed{\frac{1}{6}}$

4. $\frac{\cancel{4}^{2}}{\cancel{15}^{3}} \cdot \frac{\cancel{10}^{2}}{\cancel{18}^{9}} =$ $\boxed{\frac{4}{27}}$

5. $4 \cdot \frac{11}{44} =$

$\frac{\cancel{4}^{1}}{1} \cdot \frac{11}{\cancel{44}_{11}} = \frac{11}{11} = \boxed{1}$

6. $12 \cdot \frac{7}{20} =$

$\frac{\cancel{12}^{3}}{1} \cdot \frac{7}{\cancel{20}_{5}} = \frac{21}{5} = \boxed{4\frac{1}{5}}$

7. $\frac{\cancel{18}^{6}}{\cancel{3}_{1}} \cdot \frac{\cancel{15}^{5}}{\cancel{3}_{1}} =$ $\frac{30}{1} = \boxed{30}$

8. $\frac{\cancel{24}^{12}}{\cancel{4}_{1}} \cdot \frac{\cancel{36}^{9}}{\cancel{10}_{5}} =$ $\frac{108}{5} = \boxed{21\frac{3}{5}}$