Canceling and Multiplying Fractions

Canceling is a shortcut in the multiplication of fractions. It is just like reducing. It means dividing a numerator and a denominator by a number that goes evenly into both before actually multiplying. You don't have to cancel to get the right answer, but it makes the multiplication easier.

EXAMPLE $\frac{10}{21} \times \frac{14}{25} =$

STEP 1 Cancel 10 and 25 by 5.
$10 \div 5 = 2$ and $25 \div 5 = 5$.
Cross out the 10 and the 25.

$$\frac{\overset{2}{\cancel{10}}}{21} \times \frac{14}{\underset{5}{\cancel{25}}} =$$

STEP 2 Cancel 14 and 21 by 7.
$14 \div 7 = 2$ and $21 \div 7 = 3$.
Cross out the 14 and the 21.

$$\frac{\overset{2}{\cancel{10}}}{\underset{3}{\cancel{21}}} \times \frac{\overset{2}{\cancel{14}}}{\underset{5}{\cancel{25}}} = \frac{4}{15}$$

STEP 3 Multiply across by the new numbers.
$2 \times 2 = 4$ and $3 \times 5 = 15$

Cancel and multiply.

1. $\frac{2}{5} \times \frac{3}{4} =$ $\quad \frac{4}{9} \times \frac{3}{7} =$ $\quad \frac{5}{8} \times \frac{7}{10} =$ $\quad \frac{6}{7} \times \frac{5}{12} =$

2. $\frac{4}{5} \times \frac{1}{6} =$ $\quad \frac{8}{15} \times \frac{10}{13} =$ $\quad \frac{9}{14} \times \frac{10}{11} =$ $\quad \frac{12}{13} \times \frac{1}{15} =$

3. $\frac{4}{9} \times \frac{3}{8} =$ $\quad \frac{5}{12} \times \frac{9}{10} =$ $\quad \frac{7}{22} \times \frac{11}{14} =$ $\quad \frac{5}{6} \times \frac{9}{10} =$

4. $\frac{15}{16} \times \frac{12}{25} =$ $\quad \frac{7}{24} \times \frac{32}{35} =$ $\quad \frac{21}{26} \times \frac{13}{28} =$ $\quad \frac{19}{45} \times \frac{25}{38} =$

5. $\frac{9}{16} \times \frac{8}{15} =$ $\frac{6}{7} \times \frac{28}{33} =$ $\frac{5}{11} \times \frac{22}{25} =$ $\frac{8}{15} \times \frac{9}{32} =$

6. $\frac{12}{13} \times \frac{3}{16} =$ $\frac{4}{9} \times \frac{9}{14} =$ $\frac{15}{16} \times \frac{16}{21} =$ $\frac{11}{24} \times \frac{8}{11} =$

7. $\frac{7}{8} \times \frac{9}{14} \times \frac{5}{6} =$ $\frac{4}{11} \times \frac{5}{12} \times \frac{11}{15} =$ $\frac{16}{21} \times \frac{14}{15} \times \frac{3}{4} =$

8. $\frac{9}{16} \times \frac{20}{21} \times \frac{7}{10} =$ $\frac{4}{15} \times \frac{7}{12} \times \frac{3}{4} =$ $\frac{9}{10} \times \frac{1}{6} \times \frac{5}{8} =$

9. $\frac{7}{24} \times \frac{2}{3} \times \frac{16}{35} =$ $\frac{3}{20} \times \frac{18}{25} \times \frac{5}{6} =$ $\frac{11}{12} \times \frac{5}{11} \times \frac{8}{15} =$

10. $\frac{8}{21} \times \frac{1}{3} \times \frac{15}{32} =$ $\frac{6}{7} \times \frac{21}{40} \times \frac{4}{15} =$ $\frac{19}{36} \times \frac{7}{10} \times \frac{3}{7} =$

11. $\frac{11}{39} \times \frac{10}{11} \times \frac{13}{18} =$ $\frac{17}{21} \times \frac{14}{51} \times \frac{7}{11} =$ $\frac{15}{28} \times \frac{7}{16} \times \frac{12}{45} =$