



## Factoring - Simplifying Fraction Multiplication with Factors - Composite

### to Factored

1 Use factorization to simplify by showing what factors in this fraction multiplication can be cancelled out

$$\frac{2}{98} \times \frac{35}{7} \times \frac{28}{10}$$

A  $\frac{2}{2 \times 7 \times 7} \times \frac{5 \times 7}{7} \times \frac{2 \times 2 \times 7}{2 \times 5}$

B  $\frac{11}{2 \times 7 \times 7} \times \frac{5}{7 \times 7} \times \frac{2 \times 2 \times 3 \times 7}{2 \times 5 \times 5}$

3 Use factorization to simplify by showing what factors in this fraction multiplication can be cancelled out

$$\frac{28}{14} \times \frac{4}{6} \times \frac{7}{14}$$

A  $\frac{2 \times 2 \times 7}{2 \times 7} \times \frac{2 \times 2}{2 \times 3} \times \frac{7}{2 \times 7}$

B  $\frac{2 \times 2 \times 7 \times 7}{3 \times 7} \times \frac{2}{2 \times 3 \times 3} \times \frac{7}{2 \times 7}$

5 Use factorization to simplify by showing what factors in this fraction multiplication can be cancelled out

$$\frac{1}{7} \times \frac{70}{30} \times \frac{42}{4}$$

A  $\frac{1}{7} \times \frac{2 \times 5 \times 7}{2 \times 3 \times 5} \times \frac{2 \times 3 \times 7}{2 \times 2}$

B  $\frac{1}{7} \times \frac{2 \times 5 \times 7}{2 \times 3 \times 3 \times 5} \times \frac{3 \times 7 \times 11}{2 \times 2 \times 2}$

7 Use factorization to simplify by showing what factors in this fraction multiplication can be cancelled out

$$\frac{49}{21} \times \frac{3}{28} \times \frac{70}{5}$$

A  $\frac{7 \times 7}{3 \times 7} \times \frac{5}{2 \times 7} \times \frac{2 \times 7}{5}$

B  $\frac{7 \times 7}{3 \times 7} \times \frac{3}{2 \times 2 \times 7} \times \frac{2 \times 5 \times 7}{5}$

2 Use factorization to simplify by showing what factors in this fraction multiplication can be cancelled out

$$\frac{70}{63} \times \frac{15}{10} \times \frac{7}{5}$$

A  $\frac{2 \times 5 \times 7}{3 \times 3 \times 7} \times \frac{3 \times 5}{2 \times 5} \times \frac{7}{5}$

B  $\frac{5 \times 7}{2 \times 3 \times 3} \times \frac{5 \times 5}{2 \times 5} \times \frac{7}{2}$

4 Use factorization to simplify by showing what factors in this fraction multiplication can be cancelled out

$$\frac{30}{35} \times \frac{10}{3} \times \frac{5}{50}$$

A  $\frac{2 \times 3 \times 5}{5 \times 7} \times \frac{2 \times 5}{3} \times \frac{5}{2 \times 5 \times 5}$

B  $\frac{3 \times 3 \times 5}{5 \times 7} \times \frac{2 \times 5}{7} \times \frac{5}{5 \times 5}$

6 Use factorization to simplify by showing what factors in this fraction multiplication can be cancelled out

$$\frac{10}{25} \times \frac{4}{1} \times \frac{21}{84}$$

A  $\frac{2 \times 5 \times 5}{5 \times 5} \times \frac{2 \times 2}{1} \times \frac{7 \times 11}{3 \times 7 \times 13}$

B  $\frac{2 \times 5}{5 \times 5} \times \frac{2 \times 2}{1} \times \frac{3 \times 7}{2 \times 2 \times 3 \times 7}$

8 Use factorization to simplify by showing what factors in this fraction multiplication can be cancelled out

$$\frac{3}{4} \times \frac{45}{21} \times \frac{14}{15}$$

A  $\frac{3}{2 \times 2} \times \frac{3 \times 3}{3 \times 13} \times \frac{2 \times 7}{5}$

B  $\frac{3}{2 \times 2} \times \frac{3 \times 3 \times 5}{3 \times 7} \times \frac{2 \times 7}{3 \times 5}$