Name

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

$$\frac{14}{5} \times \frac{30}{5} \times \frac{3}{84}$$

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

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

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

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

$$\frac{15}{14} \times \frac{1}{25} \times \frac{40}{6}$$

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

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

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

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

$$\frac{3}{90} \times \frac{15}{2} \times \frac{42}{7}$$

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

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

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

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

$$\frac{5}{42} \times \frac{21}{2} \times \frac{8}{35}$$

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

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

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

$$\frac{63}{9} \times \frac{2}{1} \times \frac{21}{84}$$

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

B $\frac{3 \times 3 \times 13 \times 7}{3 \times 3} \times \frac{2}{1} \times \frac{7}{2 \times 2 \times 3 \times 7}$

C $\frac{3 \times 3 \times 7}{3 \times 3} \times \frac{2}{1} \times \frac{3 \times 7}{2 \times 2 \times 3 \times 7}$

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

$$\frac{90}{3} \times \frac{1}{12} \times \frac{6}{9}$$

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

B $\frac{3 \times 3 \times 3 \times 5}{5} \times \frac{1}{2 \times 2 \times 3} \times \frac{2 \times 3}{13}$

C $\frac{3 \times 3 \times 5}{3} \times \frac{1}{2 \times 2 \times 3} \times \frac{2 \times 3}{3 \times 3}$

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

$$\frac{10}{7} \times \frac{18}{24} \times \frac{2}{5}$$

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

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

C $\frac{2 \times 5}{11} \times \frac{2 \times 5 \times 3}{2 \times 2 \times 2 \times 2 \times 3} \times \frac{5}{5}$

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

$$\frac{4}{2} \times \frac{3}{1} \times \frac{8}{72}$$

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

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

C $\frac{2 \times 2}{2} \times \frac{3}{1} \times \frac{2 \times 2 \times 2}{2 \times 2 \times 2 \times 3 \times 3}$