



Math worksheet on 'Factoring - Simplifying Fraction Multiplication with Factors - Composite to Factored (Level 1)'. Part of a broader unit on 'Factoring, Multiplication, Division, Fractions - Intro'

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

$$\frac{15}{70} \times \frac{6}{3}$$

a $\frac{13 \times 5}{5 \times 7} \times \frac{2 \times 2 \times 3}{3 \times 3}$	b $\frac{3}{2 \times 5 \times 5 \times 7} \times \frac{2 \times 3}{3}$
c $\frac{3}{2 \times 5 \times 7 \times 7} \times \frac{2 \times 3}{7}$	d $\frac{3 \times 5}{2 \times 5 \times 7} \times \frac{2 \times 3}{3}$
e $\frac{3 \times 5}{2 \times 5 \times 5} \times \frac{7 \times 3}{3}$	f $\frac{5 \times 5}{2 \times 5 \times 7} \times \frac{2 \times 2 \times 2}{3}$

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

$$\frac{6}{5} \times \frac{15}{30}$$

a $\frac{2 \times 3}{5} \times \frac{3 \times 3 \times 5}{2 \times 5}$	b $\frac{13 \times 3}{5} \times \frac{3 \times 5}{2 \times 3 \times 5}$
c $\frac{2 \times 3}{5} \times \frac{3 \times 5}{2 \times 3 \times 5}$	d $\frac{2 \times 3}{5} \times \frac{3 \times 5}{2 \times 3}$
e $\frac{2 \times 7}{5} \times \frac{3 \times 3 \times 5}{2 \times 3 \times 5}$	f $\frac{13 \times 3 \times 3}{5} \times \frac{3 \times 3 \times 5}{2 \times 3 \times 5}$

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

$$\frac{12}{28} \times \frac{2}{3}$$

a $\frac{2 \times 2 \times 3 \times 3}{2 \times 3 \times 7} \times \frac{2}{3}$	b $\frac{2 \times 2 \times 3}{2 \times 2 \times 7} \times \frac{2}{3}$
c $\frac{3 \times 11}{7 \times 2 \times 7} \times \frac{2}{3}$	d $\frac{2 \times 2 \times 2 \times 3}{2 \times 2 \times 2 \times 7} \times \frac{2 \times 2}{3}$
e $\frac{2 \times 2 \times 3}{3 \times 2 \times 7} \times \frac{5}{3}$	f $\frac{2 \times 2 \times 3}{2 \times 2 \times 7} \times \frac{2}{3 \times 3}$

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

$$\frac{6}{36} \times \frac{14}{1}$$

a $\frac{2 \times 2 \times 3 \times 3}{11 \times 13 \times 7 \times 3} \times \frac{13 \times 13}{1}$	b $\frac{2 \times 3}{2 \times 3 \times 3 \times 11} \times \frac{2}{1}$
c $\frac{2 \times 5}{2 \times 2 \times 3 \times 3} \times \frac{2 \times 7}{1}$	d $\frac{2 \times 2 \times 3}{2 \times 3 \times 3} \times \frac{13}{1}$
e $\frac{2 \times 3}{11 \times 3 \times 3} \times \frac{2 \times 2 \times 7}{1}$	f $\frac{2 \times 3}{2 \times 2 \times 3 \times 3} \times \frac{2 \times 7}{1}$

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

$$\frac{5}{7} \times \frac{42}{50}$$

a $\frac{5}{7} \times \frac{2 \times 3 \times 7}{2 \times 5 \times 5}$	b $\frac{5}{11} \times \frac{2 \times 7}{2 \times 5 \times 5}$
c $\frac{5}{7} \times \frac{11 \times 7}{2 \times 2 \times 5 \times 5}$	d $\frac{7}{7} \times \frac{2 \times 3 \times 7}{2 \times 5 \times 5}$
e $\frac{5}{7} \times \frac{2 \times 3 \times 2}{2 \times 5 \times 5}$	

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

$$\frac{7}{98} \times \frac{20}{2}$$

a $\frac{7}{7 \times 7 \times 7} \times \frac{2 \times 2 \times 5}{2}$
b $\frac{7}{2 \times 7 \times 7} \times \frac{2 \times 2 \times 5}{2}$
c $\frac{7}{2 \times 7 \times 7} \times \frac{2 \times 5}{2}$
d $\frac{13}{2 \times 2 \times 7} \times \frac{2 \times 2 \times 2 \times 5}{2}$
e $\frac{7}{2 \times 7 \times 5} \times \frac{2 \times 11 \times 5}{2}$
f $\frac{7 \times 7}{2 \times 7 \times 7} \times \frac{2 \times 2 \times 2 \times 2 \times 5}{2}$

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

$$\frac{12}{2} \times \frac{3}{27}$$

a $\frac{2 \times 2 \times 7 \times 3}{7} \times \frac{13}{7 \times 2 \times 3}$	b $\frac{2 \times 7 \times 7}{3} \times \frac{3}{3 \times 3 \times 3}$
c $\frac{2 \times 3}{2 \times 2} \times \frac{3}{3 \times 3}$	d $\frac{2 \times 2 \times 13}{2} \times \frac{3}{3 \times 3 \times 3}$
e $\frac{3 \times 2 \times 3}{2} \times \frac{3 \times 3}{3 \times 3 \times 3 \times 3}$	f $\frac{2 \times 2 \times 3}{2} \times \frac{3}{3 \times 3 \times 3}$