



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

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**1** Use factorization to factor each number and show what factors in this fraction can be cancelled out

$$\frac{50 \times 3}{25 \times 9}$$

$$\frac{50 \times 3}{25 \times 9}$$

**a**

$$\frac{(11 \times 5 \times 5) \times (3)}{(5 \times 5 \times 5) \times (3)}$$

**b**

$$\frac{(2 \times 5 \times 5 \times 5) \times (3 \times 3)}{(2 \times 5 \times 5) \times (7 \times 2)}$$

**c**

$$\frac{(2 \times 5 \times 5) \times (3)}{(5) \times (3 \times 3)}$$

**d**

$$\frac{(2 \times 5 \times 5) \times (3)}{(5 \times 5) \times (3 \times 3)}$$

**e**

$$\frac{(2 \times 5 \times 5) \times (3)}{(5 \times 5 \times 5) \times (3)}$$

**f**

$$\frac{(2 \times 5 \times 5) \times (3)}{(5 \times 5 \times 5) \times (3 \times 3)}$$

**2** Use factorization to factor each number and show what factors in this fraction can be cancelled out

$$\frac{21 \times 21}{63 \times 3}$$

$$\frac{21 \times 21}{63 \times 3}$$

**a**

$$\frac{(3 \times 7) \times (3)}{(3 \times 7) \times (3)}$$

**b**

$$\frac{(3 \times 7) \times (3 \times 7 \times 7)}{(3 \times 7) \times (3)}$$

**c**

$$\frac{(2) \times (3 \times 7)}{(3 \times 3 \times 7) \times (3)}$$

**d**

$$\frac{(7) \times (3 \times 3 \times 7)}{(3 \times 7) \times (3)}$$

**e**

$$\frac{(3 \times 7) \times (3 \times 7)}{(3 \times 3 \times 7) \times (3)}$$

**f**

$$\frac{(3 \times 13) \times (3 \times 7)}{(3 \times 3 \times 7) \times (3)}$$

**3** Use factorization to factor each number and show what factors in this fraction can be cancelled out

$$\frac{42 \times 5}{35 \times 10}$$

$$\frac{42 \times 5}{35 \times 10}$$

**a**

$$\frac{(3 \times 7) \times (5)}{(7 \times 7) \times (2 \times 2 \times 5)}$$

**b**

$$\frac{(2 \times 3) \times (5)}{(5 \times 7) \times (2 \times 5 \times 5)}$$

**c**

$$\frac{(2 \times 3 \times 7) \times (5)}{(5 \times 7) \times (2 \times 5)}$$

**d**

$$\frac{(2 \times 2 \times 3 \times 7) \times (5)}{(5 \times 7 \times 7) \times (2 \times 5)}$$

**e**

$$\frac{(3 \times 5) \times (5)}{(5 \times 7) \times (2 \times 5 \times 5)}$$

**f**

$$\frac{(3 \times 7) \times (5)}{(5 \times 7) \times (2 \times 5)}$$

**4** Use factorization to factor each number and show what factors in this fraction can be cancelled out

$$\frac{70 \times 2}{14 \times 4}$$

$$\frac{70 \times 2}{14 \times 4}$$

**a**

$$\frac{(2 \times 5 \times 7) \times (5)}{(2 \times 7) \times (2 \times 2)}$$

**b**

$$\frac{(2 \times 5 \times 7 \times 7) \times (2)}{(2) \times (2 \times 2)}$$

**c**

$$\frac{(2 \times 5 \times 7) \times (2)}{(2 \times 7) \times (2 \times 2 \times 2)}$$

**d**

$$\frac{(5) \times (2)}{(2 \times 7) \times (11 \times 2)}$$

**e**

$$\frac{(2 \times 5 \times 7) \times (2)}{(2 \times 7) \times (2 \times 2)}$$

**f**

$$\frac{(2 \times 7) \times (2)}{(2 \times 13) \times (2 \times 2)}$$

**5** Use factorization to factor each number and show what factors in this fraction can be cancelled out

$$\frac{2 \times 30}{35 \times 6}$$

$$\frac{2 \times 30}{35 \times 6}$$

**a**

$$\frac{(13) \times (2 \times 3 \times 5)}{(7) \times (2 \times 5)}$$

**b**

$$\frac{(2) \times (7 \times 3 \times 5)}{(11 \times 7) \times (2 \times 3)}$$

**c**

$$\frac{(7) \times (2 \times 3 \times 5)}{(5 \times 7 \times 7) \times (2 \times 3)}$$

**d**

$$\frac{(5) \times (2 \times 2 \times 3 \times 5)}{(5 \times 7) \times (2 \times 3)}$$

**e**

$$\frac{(2) \times (2 \times 3 \times 5)}{(5 \times 7) \times (2 \times 3)}$$

**f**

$$\frac{(2) \times (2 \times 3 \times 5)}{(5 \times 7) \times (2 \times 3)}$$

**6** Use factorization to factor each number and show what factors in this fraction can be cancelled out

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

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

**a**

$$\frac{(7 \times 7) \times (3)}{(2 \times 3 \times 7) \times (5)}$$

**b**

$$\frac{(5 \times 7) \times (3 \times 7)}{(2 \times 3 \times 7) \times (5)}$$

**c**

$$\frac{(5 \times 7) \times (3 \times 7 \times 7)}{(2 \times 3) \times (5)}$$

**d**

$$\frac{(2 \times 7) \times (3 \times 7)}{(2 \times 3 \times 7) \times (5 \times 5)}$$

**e**

$$\frac{(13 \times 7) \times (3 \times 7)}{(2 \times 3) \times (13)}$$

**f**

$$\frac{(13 \times 7) \times (3 \times 7)}{(2 \times 3) \times (13)}$$

**7** Use factorization to factor each number and show what factors in this fraction can be cancelled out

$$\frac{42 \times 5}{70 \times 7}$$

$$\frac{42 \times 5}{70 \times 7}$$

**a**

$$\frac{(2 \times 3 \times 11) \times (5)}{(2 \times 5 \times 7) \times (7)}$$

**b**

$$\frac{(2 \times 5 \times 7) \times (2)}{(7) \times (7)}$$

**c**

$$\frac{(2 \times 3 \times 7) \times (5 \times 5)}{(2 \times 2 \times 13 \times 7) \times (7)}$$

**d**

$$\frac{(2 \times 3 \times 7) \times (5)}{(2 \times 5 \times 5) \times (7)}$$

**e**

$$\frac{(2 \times 3 \times 7 \times 7) \times (5)}{(2 \times 5 \times 7) \times (2)}$$

**f**

$$\frac{(2 \times 3 \times 7) \times (5)}{(2 \times 5 \times 7) \times (7)}$$