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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

$$\frac{42 \times 5}{2 \times 70}$$

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

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

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

d $\frac{(11 \times 3 \times 3 \times 7) \times (13)}{(2) \times (2 \times 2 \times 11)}$

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

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

$$\frac{14 \times 35}{5 \times 70}$$

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

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

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

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

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

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

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

$$\frac{10 \times 21}{75 \times 7}$$

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

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

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

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

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

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

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

$$\frac{5 \times 98}{30 \times 7}$$

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

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

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

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

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

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

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

$$\frac{6 \times 15}{45 \times 3}$$

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

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

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

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

e $\frac{(3 \times 3) \times (3 \times 3)}{(3 \times 3 \times 5) \times (13)}$

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

$$\frac{10 \times 4}{2 \times 50}$$

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

b $\frac{(2 \times 5) \times (2 \times 2)}{(13) \times (2 \times 5 \times 5 \times 5)}$

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

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

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

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

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

$$\frac{75 \times 2}{42 \times 5}$$

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

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

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

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

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