mobius

Factoring - Simplifying Fractions with Factors - Composite to Bracketed Factors

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

$$\frac{5 \times 2 \times 84}{30 \times 98}$$

A $\dfrac{(5 \times 5) \times (2) \times (2 \times 2 \times 7)}{(2 \times 3 \times 5) \times (2 \times 7 \times 7)}$

B $\dfrac{(2) \times (2 \times 2) \times (2 \times 2 \times 3 \times 7)}{(2 \times 3 \times 5) \times (2 \times 7)}$

C $\dfrac{(7) \times (11) \times (13 \times 3 \times 3 \times 3 \times 7)}{(2 \times 3 \times 5) \times (2 \times 7)}$

D $\dfrac{(5) \times (2) \times (2 \times 2 \times 3 \times 7)}{(2 \times 3 \times 5) \times (2 \times 7 \times 7)}$

E $\dfrac{(5) \times (2) \times (2 \times 2 \times 3 \times 7)}{(2 \times 3 \times 5) \times (2 \times 5 \times 7 \times 7)}$

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

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

$$\frac{18 \times 2 \times 10}{12 \times 5 \times 4}$$

A $\dfrac{(2 \times 2 \times 3 \times 3 \times 3) \times (2) \times (2 \times 5)}{(2 \times 2 \times 3) \times (5) \times (2 \times 2)}$

B $\dfrac{(11 \times 11 \times 3) \times (2) \times (2 \times 5)}{(2 \times 2 \times 3) \times (5) \times (2 \times 2)}$

C $\dfrac{(3 \times 3) \times (2) \times (2 \times 5)}{(2 \times 2 \times 3) \times (5) \times (2 \times 2)}$

D $\dfrac{(2 \times 3 \times 3) \times (2) \times (2 \times 5)}{(2 \times 2 \times 3) \times (5) \times (2 \times 2)}$

E $\dfrac{(3 \times 3) \times (5) \times (11 \times 5)}{(2 \times 2 \times 3) \times (5) \times (2 \times 2)}$

F $\dfrac{(2 \times 3 \times 3) \times (2) \times (2 \times 5)}{(2 \times 2 \times 3 \times 3) \times (5) \times (2 \times 2 \times 2)}$

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

$$\frac{50 \times 28}{6 \times 4 \times 35}$$

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

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

C $\dfrac{(2 \times 5 \times 5) \times (2 \times 2 \times 7)}{(2 \times 2 \times 3) \times (2 \times 2) \times (5 \times 7)}$

D $\dfrac{(2 \times 5 \times 5) \times (2 \times 2 \times 7)}{(2 \times 3) \times (2 \times 2) \times (5 \times 7)}$

E $\dfrac{(2 \times 5 \times 5) \times (2 \times 7)}{(2 \times 2 \times 3) \times (2 \times 2) \times (5 \times 7)}$

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

$$\frac{35 \times 7 \times 30}{25 \times 5 \times 42}$$

A $\dfrac{(5 \times 3) \times (7) \times (2 \times 3 \times 5)}{(5 \times 5 \times 5) \times (5) \times (2 \times 3 \times 7)}$

B $\dfrac{(5 \times 7) \times (7) \times (5 \times 5 \times 5)}{(5 \times 5) \times (5) \times (2 \times 3 \times 7)}$

C $\dfrac{(5 \times 7) \times (7) \times (2 \times 5)}{(2) \times (5 \times 5) \times (5)}$

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

E $\dfrac{(2 \times 7) \times (11) \times (13 \times 3 \times 5 \times 5)}{(13 \times 11) \times (5) \times (3 \times 7)}$

F $\dfrac{(5 \times 7) \times (7) \times (2 \times 3 \times 5)}{(5 \times 5) \times (5) \times (2 \times 3 \times 7)}$

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

$$\frac{60 \times 7 \times 5}{15 \times 2 \times 42}$$

A $\dfrac{(2 \times 2 \times 3 \times 3 \times 3) \times (7 \times 7) \times (5)}{(5) \times (2) \times (2 \times 7)}$

B $\dfrac{(2 \times 2 \times 3 \times 5) \times (7) \times (5)}{(3 \times 5) \times (2) \times (2 \times 3 \times 7)}$

C $\dfrac{(2 \times 3 \times 5) \times (7) \times (5)}{(3 \times 5) \times (2) \times (2 \times 3 \times 7)}$

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

E $\dfrac{(2 \times 2 \times 3) \times (7) \times (5)}{(3 \times 5) \times (2) \times (3 \times 7)}$

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

$$\frac{6 \times 6 \times 35}{49 \times 45 \times 2}$$

A $\dfrac{(2 \times 11) \times (2 \times 3) \times (5 \times 5 \times 13)}{(7 \times 7) \times (3 \times 3 \times 3 \times 2) \times (3)}$

B $\dfrac{(2 \times 3) \times (2 \times 3 \times 3) \times (5 \times 7)}{(7 \times 5) \times (3 \times 3 \times 3 \times 3 \times 5) \times (2)}$

C $\dfrac{(2 \times 3) \times (2 \times 3) \times (5 \times 7)}{(7 \times 7) \times (3 \times 3 \times 5) \times (2)}$

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

E $\dfrac{(2 \times 3) \times (7 \times 3 \times 3) \times (7)}{(7 \times 7) \times (3 \times 3 \times 5) \times (2)}$

F $\dfrac{(2 \times 13) \times (2 \times 3) \times (13 \times 7)}{(7 \times 7) \times (3 \times 3 \times 3 \times 5) \times (11)}$

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

$$\frac{45 \times 63}{9 \times 49 \times 15}$$

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

B $\dfrac{(3 \times 3 \times 5) \times (3 \times 3 \times 3 \times 7)}{(3) \times (2 \times 7) \times (3 \times 5 \times 5)}$

C $\dfrac{(3 \times 3 \times 5) \times (3 \times 3 \times 7)}{(3 \times 3 \times 3) \times (7 \times 7) \times (3)}$

D $\dfrac{(3 \times 3 \times 5) \times (3 \times 3 \times 7)}{(3 \times 3) \times (7 \times 7) \times (3 \times 5)}$

E $\dfrac{(3 \times 3 \times 3 \times 11) \times (3 \times 3 \times 7 \times 7)}{(3 \times 3) \times (13) \times (3 \times 5)}$

F $\dfrac{(3 \times 3 \times 3 \times 5) \times (3 \times 7)}{(3) \times (7) \times (5 \times 5)}$

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

$$\frac{21 \times 4 \times 10}{5 \times 6 \times 20}$$

A $\dfrac{(3 \times 7) \times (2 \times 2) \times (2 \times 5)}{(5) \times (2 \times 3) \times (2 \times 2 \times 5)}$

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

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

D $\dfrac{(3 \times 3) \times (2 \times 2) \times (2 \times 5)}{(13) \times (2) \times (2 \times 5)}$

E $\dfrac{(3 \times 7) \times (2 \times 2) \times (2 \times 5)}{(5 \times 5) \times (2 \times 3) \times (2 \times 2 \times 5)}$

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

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