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

$$\frac{5 \times 20 \times 49}{10 \times 28 \times 7}$$

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

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

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

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

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

$$\frac{49 \times 30 \times 5}{70 \times 3 \times 14}$$

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

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

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

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

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

$$\frac{6 \times 6 \times 10}{2 \times 9 \times 12}$$

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

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

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

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

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

$$\frac{75 \times 3 \times 15}{5 \times 25 \times 63}$$

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

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

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

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

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

$$\frac{60 \times 3 \times 2}{20 \times 45}$$

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

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

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

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

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

$$\frac{7 \times 7 \times 60}{49 \times 6 \times 4}$$

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

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

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

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

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

$$\frac{2 \times 42 \times 10}{4 \times 14 \times 6}$$

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

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

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

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

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

$$\frac{7 \times 75 \times 6}{2 \times 21 \times 50}$$

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

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

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

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

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