

Find the least common multiple:

① Prime factorization

② Write each unique factor

③ Write highest exponent for each factor

④ This is your LCM/LCD

1.) 2, 12
 2^1 $2^2 \cdot 3^1$

$2 \cdot 2^2 \cdot 3$
 $2^2 \cdot 3 = 12$

2.) 16, 24
 2^4 $2^3 \cdot 3^1$
 $2^4 \cdot 3$

$2^4 \cdot 3$

$2^4 \cdot 3 = 16 \cdot 3 = 48$

3.) 12, 26
 $2^2 \cdot 3^1$ $2^1 \cdot 13^1$

$2^2 \cdot 3$ $2 \cdot 13$

$2^2 \cdot 3 \cdot 13 = 4 \cdot 3 \cdot 13 = 156$

4.) $2x$, $3x^3$
 $2^1 \cdot x^1$ $3^1 \cdot x^3$

$2 \cdot 3x^3$
 $6x^3$

5.) $(x^2 - 4)$, $(x^2 - 4x + 4)$
 $(x+2)(x-2)$ $(x-2)(x-2)$
 $(x-2)^2$

$(x+2)(x-2)^2$

$$19. \quad \frac{2}{3x} + \frac{4}{x} = \frac{2}{3x} + \frac{4 \cdot 3}{x \cdot 3}$$

LCD: $3x, x$

$3x \leftarrow$

$$\frac{2}{3x} + \frac{12}{3x}$$

$$\boxed{\frac{14}{3x}}$$

$$30. \quad \frac{x-1}{x-2} - \frac{x^2+4x-4}{x^2+4x-12} \quad \begin{matrix} 1 \cdot 2 \\ 2 \cdot 6 \\ 3 \cdot 4 \end{matrix}$$

$$(\quad)(x-2) \quad (x-2)(x+6)$$

$$(x-2)(x+6)$$

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