

Simplifying Complex Fractions Worksheet

$$\textcircled{1} \quad \frac{5}{x-1} - \frac{3}{x+1}$$

=

$$\textcircled{5} \quad \frac{x^2\left(\frac{2}{x^2} + \frac{1}{x}\right)}{x^2\left(\frac{4}{x^2} + \frac{1}{x}\right)}$$

=

$$\textcircled{2} \quad \frac{\frac{1}{x} - \frac{1}{x-1}}{1 - \frac{1}{x}}$$

=

$$\textcircled{6} \quad \frac{\frac{1}{2} + \frac{1}{3} + \frac{1}{4}}{3 - \frac{4}{5}}$$

=

$$\textcircled{3} \quad \frac{5 - \frac{2}{5}}{6 + \frac{1}{3}} =$$

=

$$\textcircled{7} \quad \frac{\frac{4}{5}}{\frac{1}{5} + \frac{2}{3}}$$

=

$$\textcircled{4} \quad \frac{x + \frac{2d}{3ac}}{x + \frac{3d}{3ac}}$$

=

$$\textcircled{8} \quad \frac{\frac{1}{4x} + \frac{2}{3x}}{\frac{1}{4x} + \frac{2}{3x}}$$

=

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Answers

$\textcircled{1} \quad \frac{5}{x-1} - \frac{3}{x+1}$ $= \frac{2(x+4)}{(x+1)(x-1)}$	$\textcircled{5} \quad \frac{x^2\left(\frac{2}{x^2} + \frac{1}{x}\right)}{x^2\left(\frac{4}{x^2} + \frac{1}{x}\right)}$ $= \frac{2+x}{4+x}$
$\textcircled{2} \quad \frac{\frac{1}{x} - \frac{1}{x-1}}{1 - \frac{1}{x}}$ $= -\frac{1}{(x-1)^2}$	$\textcircled{6} \quad \frac{\frac{1}{2} + \frac{1}{3} + \frac{1}{4}}{3 - \frac{4}{5}}$ $= \frac{65}{132}$
$\textcircled{3} \quad \frac{5 - \frac{2}{5}}{6 + \frac{1}{3}} =$ $= \frac{69}{95}$	$\textcircled{7} \quad \frac{\frac{4}{5}}{\frac{1}{5} + \frac{2}{3}}$ $= \frac{12}{13}$
$\textcircled{4} \quad \frac{x + \frac{2d}{3ac}}{x + \frac{3d}{3ac}}$ $= \frac{3acx + 2d}{3acx + 3d}$	$\textcircled{8} \quad \frac{\frac{1}{4x} + \frac{2}{3x}}{\frac{1}{4x} + \frac{2}{3x}}$ $= 1$