

Answer on Question #52002 – Math – Algebra

Simplify the complex fraction $\frac{2}{x} + \frac{3}{x} - \frac{1}{\frac{1}{2}x} - 2$

Solution

The statement of question does not seem clear.

Case 1

$$\frac{2}{x} + \frac{3}{x} - \frac{1}{\frac{1}{2}x} - 2 = \frac{2}{x} + \frac{3}{x} - \frac{2}{x} - 2 = \frac{3}{x} - 2 = \frac{3 - 2x}{x}$$

Case 2

$$\frac{2}{x} + \left(\frac{3}{x-1}\right) \div \left(\frac{1}{2x-2}\right) = \frac{2}{x} + \frac{3(2x-2)}{x-1} = \frac{2}{x} + 3 \cdot 2 = 2\left(\frac{1}{x} + 3\right) = \frac{2(3x+1)}{x}.$$