Adding and Subtracting Algebraic Fractions *Fluency* ANSWERS

Write as a single fraction in its simplest form

1 $\frac{x}{3} + \frac{x}{4}$ $\frac{7x}{12}$

2 $\frac{x+1}{2} + \frac{x-3}{5}$ $\frac{7x-1}{10}$

3 $\frac{2x}{3} - \frac{x}{6}$ $\frac{x}{2}$

4 $\frac{x+2}{4} - \frac{x-1}{3}$ $\frac{10-x}{12}$

5 $\frac{3x}{5} + \frac{x+1}{10}$ $\frac{7x+1}{10}$

6 $\frac{x-4}{2} - \frac{2x+1}{7}$ $\frac{3x-30}{14}$

Write as a single fraction in its simplest form

7 $\frac{3}{x} + \frac{2}{5x}$ $\frac{17}{5x}$

8 $\frac{4}{x} - \frac{1}{2x}$ $\frac{7}{2x}$

9 $\frac{2}{x} + \frac{3}{x^2}$ $\frac{2x+3}{x^2}$

10 $\frac{5}{3x} - \frac{1}{x}$ $\frac{2}{3x}$

11 $\frac{1}{x} + \frac{1}{x^2}$ $\frac{x+1}{x^2}$

12 $\frac{7}{2x} - \frac{3}{4x}$ $\frac{11}{4x}$

Write as a single fraction in its simplest form

13 $\frac{1}{x+1} + \frac{2}{x+3}$ $\frac{3x+5}{(x+1)(x+3)}$

14 $\frac{3}{x-2} + \frac{1}{x+4}$ $\frac{4x+10}{(x-2)(x+4)}$

15 $\frac{2}{x+5} + \frac{4}{x}$ $\frac{6x+20}{x(x+5)}$

16 $\frac{x}{x+2} + \frac{1}{x-1}$ $\frac{x^2+2}{(x-1)(x+2)}$

17 $\frac{5}{2x+1} + \frac{1}{x+3}$ $\frac{7x+16}{(x+3)(2x+1)}$

18 $\frac{2}{x-3} + \frac{3}{x+3}$ $\frac{5x-3}{(x-3)(x+3)}$

Write as a single fraction in its simplest form

19 $\frac{3}{x-2} - \frac{2}{x+1}$ $\frac{x+7}{(x-2)(x+1)}$

20 $\frac{4}{x+3} - \frac{1}{x-1}$ $\frac{3x-7}{(x-1)(x+3)}$

21 $\frac{5}{x} - \frac{2}{x+4}$ $\frac{3x+20}{x(x+4)}$

22 $\frac{x}{x-1} - \frac{2}{x+2}$ $\frac{x^2+2}{(x-1)(x+2)}$

23 $\frac{1}{x-5} - \frac{1}{x+5}$ $\frac{10}{(x-5)(x+5)}$

24 $\frac{6}{2x-1} - \frac{3}{x}$ $\frac{3}{x(2x-1)}$

Write as a single fraction in its simplest form

25 $\frac{1}{x^2-1} + \frac{1}{x+1}$ $\frac{x}{(x-1)(x+1)}$

26 $\frac{2}{x^2-4} - \frac{1}{x-2}$ $\frac{-x}{(x-2)(x+2)}$

27 $\frac{3}{x^2+3x} + \frac{1}{x}$ $\frac{x+6}{x(x+3)}$

28 $\frac{x}{x^2-9} - \frac{1}{x+3}$ $\frac{3}{(x-3)(x+3)}$

29 $\frac{4}{x^2-x-2} + \frac{1}{x+1}$ $\frac{x+2}{(x-2)(x+1)}$

30 $\frac{5}{x^2+5x} - \frac{1}{x+5}$ $\frac{5-x}{x(x+5)}$