

Math III Adding and Subtracting Rational Expressions with Unlike Denominators

1. $\frac{5}{8} - \frac{3}{8x}$

2. $\frac{5}{4x} + \frac{3}{2x}$

3. $\frac{5}{4x} + \frac{7}{12x}$

4. $\frac{2}{x-3} - \frac{1}{x+7}$

5. $\frac{7}{x+2} - \frac{4}{3x+6}$

6. $\frac{3}{x+2} + \frac{4}{x-7}$

7. $\frac{5}{6x} - \frac{2}{3}$

8. $\frac{2}{4x+12} + \frac{7}{x+3}$

9. $\frac{2x+3}{5x-30} - \frac{3x+4}{x-6}$

10. $\frac{1}{x+3} + \frac{4}{x^2+4x+3}$

11. $\frac{3}{x+3} + \frac{2x}{x^2+7x+12}$

12. $\frac{2}{x-5} + \frac{3}{x-7}$

13. $\frac{3}{x+5} + \frac{x}{x^2+7x+10}$

14. $\frac{3x}{x-6} + \frac{6x}{4x-24}$

15. $\frac{7}{x+2} - \frac{4}{x-5}$

16. $\frac{5}{x+10} + \frac{4x}{x^2+12x+20}$

17. $\frac{2}{5x-20} + \frac{7}{-x+4}$

18. $\frac{2x}{x-11} + \frac{5}{-x+11}$

1. $\frac{1x \cdot 5}{x \cdot 8} - \frac{3}{8x}$

$\frac{5x-3}{8x}$


2. $\frac{5}{4x} + \frac{3 \cdot 2}{2x \cdot 2}$

$\frac{5+6}{4x} = \frac{11}{4x}$

3. $\frac{3 \cdot 5}{3 \cdot 4x} + \frac{7}{12x}$

$\frac{15+7}{12x} = \frac{22}{12x} = \frac{11}{6x}$

Created with Doceri 

<p>4 $\frac{(x+7) \cdot 2}{(x+7)(x-3)} - \frac{1(x-3)}{x+7(x-3)}$</p> <p>$\frac{2x+14 - (x-3)}{x^2+4x-21} \rightarrow \frac{x+17}{x^2+4x-21}$</p>	<p>5 $\frac{7}{x+2} - \frac{4}{3x+6}$</p> <p>$\frac{3 \cdot 7}{3 \cdot x+2} - \frac{4}{3(x+2)}$</p> <p>$\frac{17}{3x+6}$</p>	<p>6 $\frac{(x-7) \cdot 3}{(x-7)(x+2)} + \frac{4(x+2)}{x-7(x+2)}$</p> <p>$\frac{3x-21+4x+8}{(x-7)(x+2)}$</p> <p>$\frac{7x-13}{x^2-5x-14}$</p>
<p>7 $\frac{5}{6x} - \frac{2 \cdot 2x}{3 \cdot 2x}$</p> <p>$\frac{5-4x}{6x} = \frac{-4x+5}{6x}$</p>	<p>8 $\frac{2}{4x+12} + \frac{7}{x+3}$</p> <p>$\frac{2}{4(x+3)} + \frac{7 \cdot 4}{x+3 \cdot 4}$</p> <p>$\frac{30}{4(x+3)} = \frac{15}{2(x+3)} = \frac{15}{2x+6}$</p>	<p>9 $\frac{2x+3}{5x-30} - \frac{3x+4}{x-6}$</p> <p>$\frac{2x+3}{5(x-6)} - \frac{3x+4 \cdot 5}{x-6 \cdot 5}$</p> <p>$\frac{2x+3 - (15x+20)}{5(x-6)}$</p>
<p>$\frac{-13x-17}{5x-30}$</p> <p>Created with Doceri </p>		

<p>10 $\frac{1}{x+3} + \frac{4}{x^2+4x+3}$</p> <p>$(x+1) \frac{1}{x+3} + \frac{4}{(x+3)(x+1)}$</p> <p>$\frac{x+1+4}{(x+3)(x+1)} \rightarrow \frac{x+5}{x^2+4x+3}$</p>	<p>11 $\frac{3}{x+3} + \frac{2x}{x^2+7x+12}$</p> <p>$(x+4) \frac{3}{x+3} + \frac{2x}{(x+4)(x+3)}$</p> <p>$\frac{3x+12+2x}{(x+4)(x+3)}$</p> <p>$\frac{5x+12}{x^2+7x+12}$</p>	<p>12 $(x-7) \frac{2}{x-5} + \frac{3}{x-7} (x-5)$</p> <p>$\frac{2x-14+3x-15}{(x-7)(x-5)}$</p> <p>$\frac{5x-29}{x^2-12x+35}$</p>
<p>13 $\frac{3}{x+5} + \frac{x}{x^2+7x+10}$</p> <p>$(x+2) \frac{3}{x+5} + \frac{x}{(x+5)(x+2)}$</p> <p>$\frac{3x+6+x}{(x+5)(x+2)}$</p> <p>$\frac{4x+6}{(x+5)(x+2)} \rightarrow \frac{2(2x+3)}{x^2+7x+10}$</p>	<p>14 $\frac{3x}{x-6} + \frac{6x}{4x-24}$</p> <p>$4 \cdot \frac{3x}{x-6} + \frac{6x}{4(x-6)}$</p> <p>$\frac{12x+6x}{4(x-6)} \quad \frac{18x}{4(x-6)}$</p> <p>$\frac{9x}{2(x-6)}$</p>	<p>15 $(x-5) \frac{7}{x+2} - \frac{4}{x-5} (x+2)$</p> <p>$\frac{7x-35-(4x+8)}{(x-5)(x+2)}$</p> <p>$\frac{3x-43}{x^2-3x-10}$</p>

Created with Doceri 

<p>16 $\frac{5}{x+10} + \frac{4x}{x^2+12x+20}$</p> <p>$(x+2) \frac{5}{x+10} + \frac{4x}{(x+10)(x+2)}$</p> <p>$\frac{5x+10+4x}{(x+10)(x+2)}$</p> <div style="border: 1px solid black; padding: 5px; width: fit-content; margin: 10px auto;"> $\frac{9x+10}{x^2+12x+20}$ </div>	<p>17 $\frac{2}{5x-20} + \frac{7}{-x+4}$</p> <p>$(-) \frac{2}{5(x-4)} + \frac{7(5)}{-(x-4)(5)}$</p> <p>$\frac{-2+35}{-5(x-4)}$</p> <div style="border: 1px solid black; padding: 5px; width: fit-content; margin: 10px auto;"> $\frac{33}{-5x+20}$ </div>	<p>18 $\frac{2x}{x-11} + \frac{5}{-x+11}$</p> <p>$(-) \frac{2x}{x-11} + \frac{5}{-(x-11)}$</p> <p>$\frac{-2x+5}{-(x-11)}$</p> <p>$\frac{-(2x-5)}{-(x-11)} = \frac{2x-5}{x-11}$</p> <div style="border: 1px solid black; padding: 5px; width: fit-content; margin: 10px auto;"> $\frac{2x-5}{x-11}$ </div>
---	---	--

Created with Doceri 